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Farm-Credit Policy and Soil Conservation

E. C. JOHNSON

Incidence of Public Utility Taxation

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Real Estate in War Time

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The Outlook for Residential Real Estate

RALPH H. RICHARDS

Electric Rate Reductions

W. J. CROWLEY

The Federal Home Loan Bank System

MORTON BODFISH

Milk Distribution as a Public Utility

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DEPARTMENTS: A Classification of Residential Occupance—MALCOLM J. PROUDFOOT; Race-Restriction Agreements—NEWTON C. FARR; A Yardstick of Residential Lot Needs—HELEN C. MONCHOW; Problems of Upland Watershed Lands—MONT H. SAUNDERSON; County Zoning in Colorado—GEORGE S. WEHRWEIN; The Detroit Gas Rate Plan—C. EMERY TROXEL; Public Utility Financing in the Third Quarter of 1939—R. G. DUDLEY and W. H. EVANS.

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THE JOURNAL OF LAND & PUBLIC UTILITY ECONOMICS

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Farm-Credit Policy as a Factor in Soil Conservation

By E. C. JOHNSON*

IN view of the recognized need for conservation of our soil, it is important to consider how creditors through their lending policies may aid in soil conservation. This probably can best be analyzed by considering measures essential to maintenance of productivity of the soil and the relation of farm-credit policy to the establishment of such measures.

Stability of Tenure

In the first place, stability of tenure is necessary for conservation of our soil resources. Unless a farmer feels reasonably certain that he will remain on the farm over a period of years, he is not likely to take much interest in developing a system of farming which will conserve the soil, since it takes a relatively long period to establish such a system. Tenants, because their tenure status is more uncertain than that of owners, perhaps tend to deplete the soil more rapidly than do owners. However, we must not overlook the fact that the

owner-operator who has a heavy debt on his farm beyond his ability to repay does not have stability of tenure; in fact, in some regions he may have less security than a tenant. Faced with large interest payments which he must meet if he is to continue to hold his farm, he may be forced to devote his land to the production of crops that give the highest net return for the present, even though they deplete the soil and lower future income. In other words, a heavy burden of debt may result in large depreciation of land and buildings. This fact is brought out in studies in Iowa by Schickele and Himmel, who found that farms with high mortgage debts per acre had a larger proportion of land in intertilled crops, a smaller proportion of land in legumes and grasses, and showed more erosion than farms with low debts.¹

Since a burden of debt that is out of proportion to the ability of farmers to pay results in sacrifices in the standard of living and depreciation of the farm, it is reasonable to say that no action creditors can take will be more effective

* Farm Credit Administration, Washington, D. C.

¹ Rainer Schickele and John P. Himmel, "Socio-Economic Phases of Soil Conservation in the Tarkio Creek

Area," Iowa Agric. Exp. Sta., *Research Bulletin 241*, October, 1938, pp. 384-91, especially Tables 19 and 20.

in conserving both human and natural resources than to adopt conservative lending policies and to hold loans to a figure which will enable the farmer to meet his financial obligations and at the same time carry on a system of farming that will conserve the soil and provide a fair standard of living for his family.

Speculation, Land Values, and Foreclosures

Speculation often drives prices of farm land to a point beyond the value of the land based upon earnings over a period of years. We only need recall the recent experience of distress and foreclosure which grew out of the rapid rise in land values from 1915-21 to emphasize the evils of general speculation in land. During periods of rising values the tendency is to overburden farms with mortgage debts. The farmer who has purchased a farm at high values and has established only a small equity will have little incentive to carry on after this equity has been wiped out by declines which follow boom periods. If speculation in farm land can be controlled, we shall have progressed a long way toward achieving a goal of greater stability of tenure for farmers as well as toward conservation of soil resources.

A rapid increase in farm real estate values is usually associated with a long period of increasing prices for commodities generally. Such periods are favorable for marked increases in net returns to farmers because farm costs tend to rise more slowly than prices for the products sold. This increase in net returns usually results in a marked increase in the number of farm land sales and in higher sale values. Therefore, we must look to the causes of changes in the general level of prices, chiefly monetary, to explain why prices of land increase

rapidly during certain periods. However, sales of farm real estate involve the use of credit and, if credit for financing land transfers can be controlled during such periods, greater stability of farm land prices should result.

In former years creditors tended to lend on the basis of sale values of real estate. This, of course, resulted in excessive loans during periods of rising prices and was one cause of abnormally high land values. The larger lenders, including federal land banks and life insurance companies, now realize the advisability of using normal values based on earnings of the land over a period of time in making mortgage loans. Such a policy is not difficult to follow in years of low prices but, without the united action of a majority of all creditors, it will be difficult to prevent excessive lending during favorable years. The problem of obtaining unity of action among creditors is difficult to solve, since much farm mortgage credit is supplied directly by individuals whose actions, of course, cannot be controlled under present conditions.

Tenants as a class move frequently and are not as stable on the land as owners. Therefore, a program which reduces the percentage of farms operated by tenants is likely to result in more general adoption of improved practices for conservation of our soil resources. The policy of creditors is an important factor affecting the tenure status of farm operators. That liberal loans made to farmers during periods of rising land values are likely to go into foreclosure during depression is well illustrated by experience since 1930. Transfer of farms to creditors by foreclosure of mortgages results in increased tenancy. On the other hand, loans based on the farmers' capacity to pay and on suitable terms may result in a decrease in tenancy.

Institutional Landowners and Their Responsibilities

Creditors own a large number of farms which have been acquired as a result of the failure of borrowers to meet financial obligations. As a class, these creditors are involuntary landowners, who seek to dispose of the farms as soon as a reasonable offer can be obtained. Since the policy is to sell in an orderly manner and sacrifice as little of the investment as possible, they are likely to own a large number of farms for several years and hence their policy with regard to soil conservation on these farms becomes an important factor in the conservation of soil resources. Many farms may be held for a few years before a sale is made and meanwhile the farm is operated by a tenant usually under a one-year lease. Creditors recognize that renting to a capable tenant is advantageous because the property will be maintained in better condition, the income from the farm will be greater, and also a good tenant is likely to be a potential buyer.

Type of Lease Contract. The type of lease employed is important and, although corporations generally seem to be giving careful study to equitable leases in the renting of their farms, this subject might well be explored further, especially in its soil-conservation aspects. Arrangements which in the long run reduce depreciation and tend to maintain the productivity of their farms should be of benefit to creditors as well as to society. In a large measure this is a problem of renting the farms under terms which will attract capable men who may become buyers of the farms.

The question may be raised as to how far credit institutions should go in supervising, as a means of conserving the soil, the tenants who are operating their acquired farms. No general answer can be made to this question. If good tenants

can be obtained to operate the farms, very little supervision is needed. Generally, creditors have been willing to adopt the rental practices common to the particular locality and leave the business of farming to the farmer, without undertaking to show the farmer how to farm. It seems preferable to give the good tenant freedom in operating the farm and let the landlord's part be that of setting up lease terms which are satisfactory and which encourage the tenant to do a good job. In many areas and particularly in cases where the ability of the tenant is open to some doubt, the landlord is justified in insisting on a prescribed crop rotation. Such a rotation, which should be worked out for several years in advance, should be one suited to the region and designed to maintain soil productivity. Generally speaking, creditors seem to have little difficulty in getting capable tenants for high grade farms but in areas of poor land it is often difficult to obtain good tenants, particularly for small farms. In such areas the problem may be one of combining farms to increase the size of the unit to a point where a capable family can make a good living and at the same time carry on a system of farming that will not result in serious depletion of fertility or erosion of the soil.

Supervision of Borrowers

Another important question is how far creditors should go in restricting the activities of borrowers in order to conserve the soil and prevent serious depreciation in the value of real estate offered as security. Generally speaking, the policy of creditors has been to permit the farmer to operate his farm as he may choose, providing he meets payments of taxes, interest, and principal of the mortgage as they come due, and does not abandon the property. They

have been reluctant to give the borrower advice on farming because it places the creditor somewhat in a defensive position in dealing with the borrower. The creditor can, however, choose the farmer whom he will finance and restrict his lending to cases where the operator carries on a type of farming that is suitable to his resources and will not deplete the soil. This, of course, means careful appraisal of both the farm and the applicant before closing the loan. Obviously, if creditors generally would analyze farm problems carefully and insist on certain practices being followed before funds were advanced, material improvement might result in conservation of our resources. However, most of the credit to farmers is long-term credit, and great changes may occur during the life of a long-term loan. Death or other causes may shift the farm into other hands. Changes in the attitude and fortunes of the borrower may cause him to change materially his farm operations. Therefore it appears that, if creditors are to exercise some control over use of the land, mortgage contracts must contain provisions which will enable the creditor to enforce conservation practices that tend to maintain the productivity of the farm.

Wastage Clauses. Mortgage contracts usually contain the so-called wastage clauses, but these are drawn up in general terms which make it difficult to define waste. In the past, courts seem to have been reluctant to enforce penalties for any breach of mortgage contract other than failure to pay interest and principal when due. Although the type of contract may vary greatly between creditors and between states, the usual wastage clause merely provides that the borrower shall maintain the buildings in a good state of repair, not remove any structures, and use the land in a hus-

bandmanlike manner. With a growing interest in conservation on the part of creditors, farmers, and the public generally, it appears that the time is ripe for subjecting the whole matter of wastage clauses in mortgage contracts to careful analysis in order to determine the possibility, from an economic as well as a legal standpoint, of defining wastage more specifically as a means of enforcing sound practices of soil conservation in agricultural areas. Probably such a study would indicate that it is advisable for creditors to draw up terms which will provide that a certain type of farming be carried on, that a certain proportion of the land be kept in grass, or that other practices be followed, and that failure to meet such requirements will make the loan due and payable. Farmers who are interested in conserving their farms and who look at their farm business from a long-time point of view should raise no objection to such general provisions. Of course, the farmer must be left free to carry on current farm operations without restriction as long as they conform to the general plan agreed upon.

If specific wastage clauses are to have the desired effect on soil conservation, it will be necessary for creditors to check the farms occasionally to determine the condition of the farm. This means additional expense and most creditors are operating on a margin that does not permit added expenditures in handling and supervising loans. However, a limited amount of checking on loans is absolutely necessary and may be economical because breakdowns of loans are often prevented by keeping abreast of developments on the farms.

Land-Use Adjustments

In many regions of the United States a new pattern of land use is needed if

the land is to be devoted to the most profitable use from a long-time point of view. Credit is a powerful instrument in land development and, whether provided by private or government agencies, is likely to play a major role in bringing about needed adjustment. Extension of credit to farmers in any area must be based on careful analysis of the physical and economic factors that determine the type of agriculture most suited to the region. A failure to make such analysis results in losses to both creditors and farmer-borrowers. The experience of creditors in the great plains may be cited as an example. Large amounts of capital were loaned in this region for development of general farming and for speculation in land. The droughts in recent years have forcibly called attention to the maladjustment in land use which is prevalent. Many loans are delinquent, a large number of loans have been foreclosed, farmers generally have become dependent upon government aid, and many have left the region.² It is now apparent that the agriculture in many areas should be adjusted to livestock production, with a large share of the land permanently in grass. Such an adjustment necessitates larger farms and credit will be needed in bringing about this change. Extension of credit, however, must be on the basis of a more extensive use of land, which means lower value of real estate and lower loans per acre. Since much land in the great plains has been acquired by creditors, it would seem desirable to study the whole problem of cooperation among creditors for consolidation of land holdings into large tracts which meet the minimum size-requirements for profitable farms. Also, any program of credit extension in this

area must be integrated with other activities, such as the government land-purchase and soil-conservation programs to accomplish necessary adjustments in land use. In other words, when capital again becomes interested in development of the great plains, it should be on the basis of an intelligent understanding of the problems of the region, in order that the mistakes of the past which resulted in serious loss in natural resources and waste of human effort will not be repeated.

Necessary Data

The preceding discussion emphasizes the need for intelligent loan policies which hold loans to a point where they do not become an excessive burden on farm families. To carry out such policies, creditors need information on productivity of farm lands. Agricultural lands differ greatly in productivity and, in the past, sufficient recognition has not been given to this range in productivity, with the result that the poorer lands have been relatively overvalued in appraisals for loans. In relation to productivity, the loans on poorer lands have been larger than on good lands although, of course, the loans per acre have been greater on the better lands. As we review the experience of creditors, we find that the percentage of loans that have gone into foreclosure has been much greater on the lands of lower productivity. Studies by the Farm Credit Administration, in an area including eight counties in southern New York where land classifications were available, showed that on land classified as good to excellent only 13% of the loans of particular creditors had been foreclosed, whereas

² In this connection see, e.g., R. R. Renne, "Land Credit Practices and Successful Farm Operation," 14 *Journal of Land & Public Utility Economics* 442-51

(November, 1938) and Gilbert W. Cooke, "The North Dakota Rural Credit System," 14 *Ibid.* 273-83 (August, 1938).

on land classified as poor 35% had been foreclosed.³

Intelligent appraisals, in which careful study is made of the productivity of the land, will do much to hold loans to amounts that will not overburden the farmer and that will at the same time encourage him to carry on practices that conserve the soil. More information is needed on productivity of land and such information should be available to the public. The United States Department of Agriculture and state experiment stations are giving considerable attention to economic land classification and to assembling figures on average yields of various crops in specific areas. This type of information can be used to advantage by farmers, creditors, and other agencies concerned with agricultural problems.⁴

Conclusion

Conservation of our soil resources means that farmers must adopt farming practices which prevent soil erosion and

serious loss of fertility. In some areas this means adjustment in the type of farming from emphasis on cash crops to a more diversified agriculture. It may involve a gradual shift to a more extensive use of land, with more land in grass and that in turn means more acres of land per family. Many farmers lack the capital necessary to establish desirable soil-conservation practices and creditors can aid by providing credit for such practices.

In conclusion, it is well to mention that the combined efforts of many groups and institutions are necessary to achieve a goal of effective utilization of our human and natural resources. Creditors play an important role and by intelligently directing the flow of capital into agriculture, so that it will result not in a speculative increase in sale price of land but in actual improvement of farms and improved farming practices, they can contribute greatly to the general welfare of the people.

³ Unpublished data in the files of the FCA.

⁴ See Conrad H. Hammar, "Land Classification to

Aid the Appraiser," 15 *Journal of Land & Public Utility Economics* 277-86 (August, 1939).

The Changing Incidence of Public Utility Taxation

By JESSE V. BURKHEAD*

The General Rule of Incidence as Applied to Utilities

PROBLEMS in the incidence of public utility taxes have been generally considered as capable of far easier solution than problems in the incidence of other business taxes. The rates charged by a public utility are determined by state regulatory commissions; these rates are calculated to yield revenues sufficient to meet all operating expenses including taxes, and provide a fair return. Therefore it is generally true that a tax imposed on a utility is a tax imposed on the utility's customers. Under effective regulation, the owners of a utility may earn no more than a fair return on their investment. Taxes constitute no burden on ownership because the utility can always legally demand a rate schedule which will yield a return over and above that which is necessary to compensate all tax payments.

Utilities are legally assured that under ordinary conditions their taxes will be completely shifted forward to the rate-payers. Other businesses meet with varying degrees of success in their attempts to shift taxes forward in the form of higher prices, and never have legal assurance that they will be completely successful in their attempts.

Exceptions to the General Rule of Incidence

Two exceptions to the general statement that utility tax burdens never fall

on ownership are usually recognized. The first arises out of the lags inherent in the regulatory process. Although it is legally possible for a utility to appear before the regulatory commission and demand a rate schedule which will yield revenues sufficient to compensate all tax payments, yet the processes of adjustment take considerable time. During periods of rapidly changing economic conditions, such as those of the last decade, these lags become very important. During the interval which elapses between the imposition of the tax by the legislative body and the consideration of that tax by the regulatory commission for rate-making purposes, public utility ownership certainly bears the burden of the tax increase. A variation of this condition arises during a depression, when utility revenues fall, but operating expenses, including taxes, fall in smaller proportion. The unwillingness on the part of the utility to demand an increased rate schedule, or the lag in procuring the schedule, tends to place the burden on ownership.

The second exception arises out of the determination of monopoly price. If full monopoly price is already being charged for the utility's product, no price changes will increase the net revenue.¹ In such a situation, the increased tax burdens imposed by legislatures will fall on ownership. Such a situation might reasonably exist in the street railway industry under circumstances where a five-cent fare constitutes full monopoly price. It would be less likely to exist or, at any rate, would

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The author is indebted to Professor Harold M. Groves for very great assistance in the preparation of this article.

¹ See C. Woody Thompson, "Some Fundamentals of Utility Taxation," 11 *Journal of Land & Public Utility Economics* 149-50 (May, 1935).

exert less influence in the electric light and power industry. So it is that, even though the regulatory commission might permit a higher price, the utility would retain the monopoly price and the burden of increased taxes would fall on the owners of the utility.

Apart from these two exceptions, the mechanics of rate regulation will generally insure that taxes imposed on a public utility will become a burden on the utility's customers. It was not until the 1920's that this concept of "regulated incidence" became established for all taxes including income taxes paid by utilities. After its complete acceptance by the courts and leading public service commissions, "regulated incidence" was generally followed until the beginning of the depression, but since that time it would seem that increased utility taxes have operated to place a burden on ownership rather than on the utility's customers. Increased taxes have created this burden because they have lowered the rate of return on utility investment.

In so far as this rate of return has not been reduced below the "fair" rate that would be realized under effective commission regulation, taxation rather than regulation has been the device which has brought the return on utility investment in line with the return on comparable investments. This is the situation that has generally obtained since the beginning of the depression, and it is in this sense that taxes have become a burden on ownership. Probably in many cases taxes have caused the utility to earn less than a fair return, that is, have placed an oppressive burden on ownership. But in either case taxes may be considered a burden on ownership if they operate to reduce the return on investment below what it would have been had there been no taxes.

² *Re Burkhardt Milling and Elec. Power Co.*, P.U.R. 1921 D 777.

The Relation of Taxation to Fair Return

After the Smyth-Ames doctrine of fair return on fair valuation had become a part of the working procedure for state public service commissions, it was but another step to recognition of the fact that this fair return could not reasonably be reduced by the imposition of taxes, even if the legislature intended such taxes to rest on ownership. For the "fair return" of the Smyth-Ames rule came to mean a return which would attract and hold capital in the enterprise. If the rate of return allowed by the regulatory body were to be subsequently reduced by the legislature through imposition of a corporate net income tax, the return would no longer be "fair." Therefore, the net return after all taxes were paid must be the object of consideration. As long as this net return is sufficient to attract and hold capital in the enterprise, the actual mechanics of allowing or disallowing specific taxes as operating expenses becomes unimportant. The Wisconsin Public Service Commission was one of the first regulatory bodies to recognize this:

"As to the income tax, methods of procedure differ. Some authorities treat it as an operating expense and others handle it as a deduction from net income. In either case the final result is unchanged. The utility, under normal conditions, is entitled to a fair return. If from the net income which makes up such returns, income taxes are deducted, the remainder must still be sufficient to be compensatory to capital, or the return will be insufficient to permit of the development of the industry. In making an allowance of eight per cent for return, the Commission considers such allowance necessary after meeting all tax requirements."²

In the following year Mr. Justice Brandeis, speaking for the Supreme Court in the often quoted *Galveston* case, gave judicial sanction to the method which treats all taxes including income taxes as

operating expense.³ The most important pronouncement in this decision was Mr. Justice Brandeis' reasoning to the effect that, because the dividend payments to utility stockholders were exempt from taxation under Paragraph 216 of the federal income tax law, the fair rate of return earned on the investment in the utility should be correspondingly lower. This was judicial recognition that the processes of rate making and taxation cannot be separately considered. Utility investment must be considered in relation to comparable investment and to the tax laws under which it operates. A subsequent Oklahoma decision stated the position even more clearly:

"It is obvious that a lesser rate of return which is exempt from the income tax would equal a larger return upon which such tax was payable, and it is this which the court said should be taken into consideration in determining whether the rate of return was reasonable."⁴

In spite of the logical consistency of the courts' position, many economists have felt that it is a tactical error to safeguard completely any class of property from the burden of taxation. This, it is felt, is particularly true where rate regulation is slow or ineffective. On the other hand, if rate regulation is effective, it clearly makes no difference whether ownership is formally called upon to bear some of the burden of taxation. This issue, largely an administrative one, as to whether or not some taxes should be specifically placed upon ownership has appeared again with new significance in New York, as will be noted below.

Changes Wrought by the Depression

This may be said to describe the situation down to the 1930's; that is, all taxes were included in operating expenses and

charged to consumers of utility services. But with the depression a new relationship arose between taxation and the rate-making process. This new relationship was brought about by greatly increased utility taxation, reduced rate schedules, and less reliance on valuation in the rate-making process.

Most of the increased tax burden on public utilities came as a result of the search by both state legislatures and Congress for more stable revenue sources, which came to mean, in effect, taxes on consumption. In addition to the 3% federal excise tax on electric energy, many states enacted gross revenue taxes applicable to gas and electric companies. Legislative imposition of increased taxes placed the burden of proof and of action on the utilities, for any movement for upward revision of rates must, of course, be initiated by the utility. In the 20's it had been possible for a utility to demand from the public service commission an increased rate schedule to cover increases in tax payments, but consumers felt that depression conditions did not warrant increased rates when other prices were falling; as a consequence, the lags of regulation became more pronounced. The result was that, with rate schedules relatively constant, with little or no increase in the use of utility service, and with other utility costs reduced but little, the greatly increased taxes operated to reduce the return on utility investment. The increased tax burden became, in effect, a tax on utility ownership rather than on utility customers because the return on utility investment was now less than it had been before imposition of the tax.

The last decade has been characterized by a general decline in interest rates. The rate of return necessary to at-

³ *Galveston Elec. Co. v. City of Galveston et al.*, 258 U.S. 388 (1921).

⁴ *Okla. Natural Gas Co. v. Corp. Com. et al.*, 90 Okla. 84 (1922).

tract and hold utility investment has tended to move downward with other interest rates. On the assumption that there had been no increased tax burdens during the depression, all public service commissions which determined utility rate schedules according to fair return on fair valuation would have had to revamp the rate schedules to bring them in conformity with this lowered rate of fair return. But the action of legislatures imposing additional tax burdens greatly reduced the necessity for these revisions, for taxation became the device for establishing a far closer approximation to a fair rate of return than would have obtained had there been no increased taxes. This condition might be termed poor regulation and reasonable and temporary special utility taxes.

It would not be accurate to say that utility customers did not ultimately pay the increased taxes, nor that the tax payments had been shifted from customers to owners. All utility taxes must, of course, eventually come out of the revenues paid in by utility customers. But the burden of new utility taxes, as distinguished from the payments, certainly came to rest on ownership. If rate schedules had been constantly revised to keep the return on utility investment in line with the lowered interest rate and if taxes had not been increased, utility customers would be receiving service at lower rates than is the case today. But not only is there no constant revision of rate schedules, there is also a tendency toward little variation in the rate of return even with such revision. Under these conditions the increased utility taxes of the past few years have played an important role in supplementing the mechanics of the regulatory process. It would seem that, in the absence of constant and effective regulation, increased utility taxes have exer-

cised a generally equitable function, operating to keep the return on utility investment roughly in line with the return on comparable investment in other fields. Special utility taxes used to supplement inadequate regulation have certainly produced a better result than inadequate regulation and no special utility taxes.

As a characteristic of this period of changing regulatory relations, public service commissions came to rely less on rate regulation through valuation and more on regulation through bargaining and competition. The Wisconsin Public Service Commission has used valuations in no more than three or four cases since the reorganization of the Commission in 1931.

Utility Patrons' Ability to Pay Taxes

The equity of the results that have been obtained through additional utility taxes depends not only on the burden imposed in each particular case but also on utility customers' ability to pay for increased governmental costs.

When rate regulation is perfect and there are no special utility taxes, utility prices are on a strictly cost-of-service basis. But, when utility users pay special excise taxes, they contribute to the support of government more than they would under a system of "normal" business taxes. If the advisability of imposing such taxes as excises on utility services is considered only in the light of revenue-producing possibilities, then it is not necessary to devote much attention to the ability to pay represented in the contributions to government made by utility customers. But if the tax system has been tending toward greater emphasis on ability to pay measured by income, then it is pertinent to inquire into the relation between the use of utility service and the incomes of users of that service.

The federal electric energy tax is the best case in point. This tax is a flat 3% excise on the use of electric energy for residential and commercial, but not for industrial, purposes. In the case of commercial users of electricity there are probably so many variations in the relationship between the use of electricity and the income of the concern that no reasonable correlation exists. But in the case of residential users of electricity it would appear that some conclusions, although of a very general nature, can be reached.

For present purposes it may be assumed that the excise tax is shifted forward and is paid by users of electricity. Then, dividing income recipients into three general groups—lower, middle, and upper—it may be observed that the use of electric energy increases roughly in proportion to the amount of income received by the lower and middle income groups. But increased use of electricity tends to level off sharply in the upper income group. That is, the correlation between the use of electricity and the income of the users will be greater for the lower and middle income groups than for the upper income group. Thus excise taxes on electric energy will be roughly proportional to the incomes of lower and middle groups and less than proportional to the income of the upper group. If the foregoing analysis is correct, an excise tax on electric energy can be only partially justified on the grounds of ability to pay measured by income, since it bears more heavily on the lower and middle reaches of income than on the upper. This conclusion would apply to any tax paid by an electric company.

Consequently, inadequate regulation plus special taxes is more equitable than inadequate regulation and no special taxes, but less equitable than adequate regulation and no special taxes.

Formal Imposition of Taxes on Ownership

In New York, where valuations and a generally fixed rate of return seem to be more widely used than in most other states, there has been an interesting and significant tendency to divide taxes into those imposed on owners and those imposed on customers, the latter being the only ones which are treated as operating expense. It was noted above that after the Galveston decision all taxes of whatever nature were legally to be included as operating expenses for rate-making purposes. When regulatory commissions are primarily concerned with the amount of net return after taxes are paid, and if this amount is not fixed in relation to any previously established rate but varies according to what is necessary to attract and hold capital in the business, then whether or not taxes are specifically included in a computation of operating expenses is of little moment. But when a rate of return to be earned on investment has been established a priori, it becomes important whether specific taxes are treated as operating expense or whether they are paid out of net income.

In the last few years the New York Public Service Commission has relied on a 6% rate of return, which has been accepted by the courts as reasonable. In an attempt to avoid the difficulties involved in lowering this rate, the Commission has distinguished between taxes on the property, treated as an operating expense, and taxes on ownership of the property.

In 1932 Congress enacted the 3% electric energy tax. According to the terms of the law, the tax was to be billed to and paid by the customer. In 1933 Congress revised the law to express the intent that the tax should be paid by the utilities. The New York Public Service Commis-

sion sought to carry out this intent and regulate the incidence of the tax by disallowing it as an operating expense.⁵ But in *New York Edison Co. et al. v. Milo R. Maltbie et al.*, decided by the New York Supreme Court January 16, 1934, the Commission was reversed:

"If 6 per cent is a reasonable rate of return, and the Commission so held, then an order of reduction that will deprive these petitioners of such reasonable return is confiscatory."⁶

Thus the New York Supreme Court was concerned with the net return after taxes were paid, whereas the Commission was concerned with a reasonable rate of return.

In spite of the Supreme Court's position, which could clearly be applied to all taxes of whatever nature, the New York Public Service Commission has disallowed capital stock taxes as operating expense⁷ and also the state dividend tax.⁸ This disallowance has not as yet been challenged in the courts. Many administrative difficulties would be involved in an attempt to make a definitive distinction between taxes on utility property chargeable to the customers as an operating expense and taxes on ownership chargeable to the stockholders. But if the courts will permit such distinctions to be made by commissions which determine rate schedules according to an a priori fair rate of return, then such commissions will have an enhanced power over the rate of return because of this ability to allow or disallow specific taxes as operating expense.

A more recent suggested attempt to impose taxes formally upon utility own-

ership has appeared in Wisconsin as a result of the state supreme court's reversal of the Public Service Commission's rate reduction orders in the Wisconsin Telephone Company case. Those who advocate this plan feel that the state should attempt to tax as heavily as possible the sums that had been impounded pending settlement of the case. The very fact that such proposals are made indicates that some citizens feel that taxation should supplement the apparent inability of the Public Service Commission to make rate reductions effective. Even if such "punitive" taxes are eventually shifted forward to utility customers, the least that could result is the transfer of the burden of proof and of action from the public service commission to the utility.

Apparently something like this has taken place in the past decade in the special emergency taxes which have been imposed on utilities, especially gas and electric companies, by many state legislatures. Where these taxes take the form of a gross receipts levy, lasting for no more than a year or two, the utility has little opportunity to obtain rate increases sufficient to cover the emergency payments, for by the time the rate schedules are ready for revision the tax is no longer in effect. When legislatures seek to take advantage in this way of the lags in regulation, utility ownership has little choice but to bear the full brunt of the tax increase.

Conclusion

In spite of the improvements that have been made in recent years in the regulation of public utility rates, the ad-

⁵ *Re Rates and Rate Structures*, 1 P.U.R. (N.S.) 113 (1934); *Re Rates and Rate Structures*, 2 P.U.R. (N.S.) 307 (1934); *Re Rochester Gas and Elec. Corp.*, 4 P.U.R. (N.S.) 513 (1934).

⁶ 281 N.Y. Supp. 223.

⁷ *Citizens Committee v. Kings County Lighting Co.*,

Case No. 6983, February 17, 1937; *Re Brooklyn Borough Gas Co.*, 21 P.U.R. 353 (1937); *Re Rochester Tel. Corp.*, Case No. 9239, December 7, 1937.

⁸ *Re Yonkers Elec. Light & Power Co.*, 4 P.U.R. 513 (1934); *Citizens Committee v. Kings County Lighting Co.*, n. 7 above; *Re Brooklyn Borough Gas Co.*, n. 7 above.

ministrative mechanism is far from perfect. Legislative appropriations for regulatory purposes have been generally inadequate. But the greatest obstacle to effective regulation has been the attitude of the courts toward the work of the commissions. As a result, public utility rate structures are inevitably more inelastic than other price and cost structures. Additional difficulties are involved in keeping the rate of return on utility investment in line with interest rates on comparable investments. Not the least of these is the propensity of commissions and especially of courts, to cling to a rate of return that has received previous judicial sanction as "reasonable." A demand schedule for electric utility services which shows an elasticity greater than unity further complicates the determination of fair rates and fair return.⁹

When economic conditions are relatively stable, lags in the regulatory process have less significance than during times of rapidly changing cost and income structures. In such periods, of which the last decade is a notable example, taxation becomes an important instrument of regulation, returning to the community excess earnings which would otherwise be retained by the utility. An ever present danger, of course, is that the legislature will act unreasonably, and that taxes used to supplement the regulatory process will become oppressive. In such a situation, resort to the courts might bring relief only after the utility's financial condition had been greatly impaired. To say that such a situation should be guarded against would be putting the case mildly. Another danger is that taxes, imposed at a time when there is no possibility of obtaining

lower rates may, at a later date, be used by the utilities to defer rate reductions which would benefit the entire community.

Two possible motives prompt the imposition of a special tax on utilities. The tax may be a constructive addition to the fiscal system. If so, its feasibility should be considered in relation to other possible sources of revenue and, as has recently been the case, in relation to other excise taxes. A second motive is to fill in the gaps in the regulatory process in an attempt to insure that utility owners will receive no more than a fair return on their investment. It must be admitted that this latter "motive" is more often a result than an initiating cause for legislation, but it certainly deserves consideration as justification for special utility taxes.

There are four possible conditions of relationship between utility regulation and utility taxation. The first is good regulation and no special utility taxes, other than general business taxes. This is the public service commissioners' ideal, but unfortunately can be attained only where the courts grant public service commissions considerable latitude and when economic conditions are relatively stable. This condition, of course, enables utility customers to obtain service at the lowest possible rates. If this is the desired relationship between taxation and regulation, legislatures must abandon utility taxation as a source of emergency revenue. However, it should be noted that during periods of fiscal emergency when legislators tend to resort to commodity taxation, they could do worse than to employ excise taxes on such utility services as electric energy. The use of electric energy is correlated with

⁹ Many utility companies have discovered that they are operating under conditions of increasing return. That is, when rates are reduced the increased use of service more than makes up the revenue deficiency,

causing earnings to be greater rather than less. This creates additional difficulty in determining expected revenue and computing rate schedules.

ability to pay far more than is the use of many other frequently taxed commodities.

The second condition of relationship between utility taxation and regulation is poor regulation and no special taxation. This is clearly the least desirable alternative, for the consumer of utility service pays excessive rates and the community does not benefit from increased tax revenues.

The third condition is that of poor regulation and reasonable and temporary special taxes. It has been argued here that this is the situation which has resulted during the past decade. Because of the attitude of the courts, inadequate appropriations, and rapidly changing cost and income structures, regulation has been subject to many imperfections; special utility taxes have tended to fill in the gaps of regulation. During periods of relative stability, poor regulation and special utility taxes should be altered to conform to the first condition. That is, every attempt should be made to perfect the system of regulation and, as this is done, special taxes on utilities should be repealed.

The fourth condition, that of poor

regulation and unreasonable and permanent taxes, is a possible outgrowth of the third. The danger that legislatures may become ingrained in the habit of devising special taxes for utilities is too imminent.

Of these four conditions of relationship, the desideratum during periods of a relatively stable economy is clearly the first—good regulation and no special utility taxes. During times of rapidly changing economic conditions when regulation becomes inadequate, temporary and reasonable special utility taxes may well be used to supplement regulation.

To resort to taxation as a means of regulation by no means implies that the usual regulatory machinery is useless; it does mean that under certain conditions the ordinary processes of regulation are unable to cope with the problem. But if the result is to be in any measure satisfactory, the fact must be recognized that the power of regulation and the power of taxation are not mutually exclusive, but that both are designed to serve the entire community. Used together, taxation and regulation can more equitably resolve the conflicting interests in public utility relationships.

Real Estate in War Time

By HOLMAN D. PETTIBONE*

Comparison of Present with 1914 War Period

IN CONSIDERING the question of what is likely to happen to real estate in war time, it seems to me that the first thing we ought to realize is that conditions in this country today differ so greatly from those of 1914 that our experience in the last war may not be a trustworthy guide.

The two periods are socially, economically, and politically different. In 1914 we had a relatively small public debt. Today our federal debt alone exceeds 40 billion dollars, and on top of that are billions of debt incurred by states, cities, counties, and other political subdivisions. War or no war, the tax burden is a more important factor in all business today than it was in 1914. Although the burden of federal taxes does not fall directly on real estate, it does affect directly real estate earnings in the hands of real estate owners; it has a bearing on the cost of materials necessary to construction and operation of buildings; and it influences decisions on investment policies of individuals and corporations.

At the beginning of the World War, we had no accumulated housing deficit of the proportions existing today. Government had not entered the real estate and mortgage fields at that time. Federal housing projects had not appeared on the scene. Insurance companies, savings banks, and other institutional mortgage lenders were interested to a far less extent in real estate than they are today.

They are now not only owners of real estate mortgages; they are extensive owners of real estate. Incidentally, they have shown themselves to be intelligent, capable owners who maintain their properties and their rents, and who market their holdings in an orderly manner. At the present time they are a factor of strength in the real estate situation.

Prices of building materials and labor are higher today than they were at the outbreak of the World War. In 1914 building construction was, generally speaking, in the doldrums, whereas building activity has been at a relatively high level throughout much of the country during the past 12 months or more.

Viewed from the standpoint of general economic activity, the difference in the two periods is equally marked. When the World War began, we were suffering from a rather severe business depression. The present war began just as we were quite obviously entering a period of substantial business recovery. In 1914 we had no great surplus of stocks of foodstuffs and basic commodities, such as we have today. We did not have the excess manufacturing capacity or the large reserve of unemployed man power that is at our disposal in 1939.

Then, again, we are much better prepared in every way for the shock of war than we were in 1914. Recurrent crises in Europe have made the possibility—even the probability—of war evident to most of us for some time. We are better prepared to protect ourselves against violent price fluctuations induced by conditions abroad. A clear demonstration of this appears when we recall that the New York Stock Exchange remained

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This is substantially the statement made before the annual convention of the National Association of Real Estate Boards, October 24, 1939, at Los Angeles.

closed, because of the danger of panic, from July 31, 1914 to December 15, 1914, when it reopened with certain restrictions which were not removed until April 1, 1915, whereas at the opening of hostilities in September, 1939, the market not only remained open but was strong, with rising prices.

Now such factors as these undoubtedly do make a review of our experience in the World War of limited value as a guide to the future. Yet we may as well take a look at what happened to real estate in those days, to see what changes occurred as we went from the pre-war period through the days of American neutrality to the period of our active war participation in 1917 and 1918.

Real Estate in the 1914 War Period

When most of the world began to devote itself almost entirely to military pursuits in 1914, the United States, as the largest and most economically important neutral, was called upon to feed and clothe much of the rest of the world. Real estate as a necessary commodity was naturally affected. Manufacturing property soon felt the stimulating effects of war-time activity. War profits flowed to us as a neutral nation, and much of them went into pay envelopes. People could buy more and better clothes. They could eat more nourishing food. They could afford to pay more rent for better living quarters. These conditions naturally were reflected in increased retail sales and hence in increased commercial rents. They were reflected also in rising residential rents and would have been reflected in residential construction had not the manufacturing facilities of the nation been devoted primarily to war needs. They were reflected in rising prices of agricultural products and of farm lands.

Now, although real estate, like any

commodity, is affected by supply and demand, it has, of course, a distinctly local character. Hence the effect of the World War on real estate activity varied according to the specific conditions existing in different localities. From our own records and from those of other title companies in different sections of the country, as well as from other sources, I have gathered some data on urban trends which may be worthy of consideration.

In Chicago, the number of orders for abstracts and title policies received by my own company declined slightly from 1913 to 1914, did not change much in 1915, increased slightly in 1916. Then, when the United States entered the war in 1917, the effect on the real estate market in Chicago was decidedly adverse. The volume of our abstract and title-policy orders dropped 20% between 1916 and 1917, and fell another 19% by 1918.

We found much the same situation with reference to escrow deals. In 1914 there was a substantial decline from the preceding year. In 1915 a further drop occurred. In 1916, our last year of neutrality, a slight increase was noted. But when we entered the war the next year, there was a drop of 12%, followed in 1918 by another decrease of over 31%.

Other real estate factors in Chicago and Cook County followed almost exactly the same trend. Some increase in activity was evident until 1917; when we entered the war, there was a falling off. In 1913, we erected 4.8 buildings per thousand inhabitants. This dropped to 4.2 in 1914 and continued at exactly that figure through 1916. In 1917, when we entered the war, only 1.9 buildings were erected per thousand inhabitants, and in 1918 this figure dropped to less than one building per thousand, a decline of almost 80%.

The picture in Seattle was quite different. There, shipbuilding activity was a considerable factor. The rise in rents did not begin until about a year after the war started, because a certain amount of slack had to be taken up and a certain amount of vacant space had to be absorbed. Once that was done, rents began to increase and business space was very much sought after. There were no residential vacancies and people bid against each other for space already occupied. It was strictly a landlords' market. Residential and apartment rents increased during these years from 33 to 40%.

In Philadelphia, the first results of increased real estate activity were felt in the neighborhoods of industrial plants. Since many of these were located in outlying sections of the city, activity spread rapidly into the suburbs. After the United States entered the war, real estate activity increased considerably with growing momentum and affected all classes of properties—industrial, commercial, and residential.

In St. Louis, from 1914 to 1916 there was a decrease of about 25% in real estate activity. In 1917, when we entered the war, there was an additional decrease of 23%, so that toward the end of the war, real estate activity in St. Louis was at approximately 1/2 its normal level. Two years after the war closed were required to bring back a good real estate market. Rents in St. Louis were not greatly affected during the war. They were low at the beginning and continued so until after the war. Commercial leasing was not greatly affected. Some decrease in rents occurred because commercial firms were not entering into any new enterprises.

In New York, according to the *Real Estate Record*, the volume of Manhattan mortgage lending dropped from \$118,000,000 to \$99,000,000 in 1915, but rose

again to \$105,000,000 in 1916 and to \$120,000,000 in 1917. In 1918, as we went deeper into war conditions, it declined 55% from the 1917 figure. New construction in Manhattan, which rose during the period of our neutrality, slumped markedly during our participation in the war. The figures are as follows:

1914.....	\$ 45,000,000	1917.....	\$29,000,000
1915.....	64,000,000	1918.....	9,000,000
1916.....	112,000,000		

Commercial renting, on the contrary, improved steadily almost from the start. The first real estate to feel the effects of the war was that in downtown Manhattan. As the volume of exports to the allies increased, there was a corresponding rise in demand for downtown office space. Office, loft, and warehouse space rented freely at increasing rates. In New York City the effects of war activities were felt later in the apartment field than in commercial property. The influx of office and loft tenants had its natural effect on residential property, and the fall renting season of 1916 turned out to be one of the most active ever experienced in Manhattan. The scarcity of apartments became pronounced almost immediately after the entry of this country into the war. The complete absorption of residential space was caused by the influx of war workers, a lack of mortgage money, the rising cost of building materials and labor, and later, by the government's prohibition of construction costing more than \$25,000, except for buildings necessary to the conduct of war.

In Los Angeles, if the year 1913 is taken as a base of 100, title-company orders showed this record:

1914.....	87	1918.....	58
1916.....	78	1919.....	111
1917.....	68		

Building construction followed almost

the same course as title-company orders. Cement, lumber, and steel were practically unavailable during the war for other than war purposes. Rentals declined and vacancies increased in residential, commercial, and office space. In 1917, Los Angeles had practically no industrial development; today it is an important industrial center.

In general, throughout the country, urban construction of all kinds, other than for war purposes, decreased until it almost ceased entirely during the actual war years. This was the result, not so much of government regulation, as of the fact that so many men left for the army that additional accommodations were not needed and, since workmen were paid high wages on government construction, not many were available for private building. Such increases in activity as occurred were largely in industrial centers.

I shall not attempt to present any detailed data as to farm lands. It is a story of a big boom through the period of war and a catastrophic collapse as an aftermath. That pattern furnishes no certain guide to the future with the present tendency toward control of agricultural production and marketing, and different conditions in world markets.

So much for these pictures of real estate under war-time conditions of 25 years ago. How is it likely to be affected by the present war?

Real Estate in the Present War

If we can make any one clear deduction from the experience of the past, in my opinion it is this: as long as we remain a neutral nation, real estate activity will probably remain at least on an even keel, and in some localities where activities related to war commerce center, it may increase substantially. On the other hand, if this country were to

enter the war, I think we can be certain of a sadly depressed state of affairs so far as the real estate market is concerned. I am now speaking of the real estate market—i.e., activity in sales, lending, financing, building.

We are, of course, keeping in mind that real estate has two aspects—one, as a marketable commodity and the other, as an investment.

Those of us who depend for our earnings upon real estate sales and transfers and loans have a vital interest in anything which tends to expand or contract that activity. We all know that it takes steady to increasing rents and a trend toward a higher percentage of occupancy to stimulate new building by private capital. New building is required to stimulate activity in such vacant land as is usable only when built upon. The absence of these stimulants quickly reduces real estate sales, even though its effect on income from existing properties may be slight.

Those of us who depend upon the net earnings of real estate as an investment may feel more comfortable when there is a good market for sales, but we realize that the absence of activity with cessation of new construction may reduce our earnings very little and may even increase them. We have had ample proof during periods of depression that improved real estate shorn of a market will still produce a substantial income for the owner.

How many people do you meet today who feel entirely comfortable and secure about their investments, or even about the wisdom of holding unusual sums of money uninvested? Very few. This is then a time for particular attention to the principles of sound diversification. Since no thoughtful man can be certain about the future of any single investment, the obvious answer is to have

variety. Here then is the opportunity for the Realtor. The man who owns real estate owns a thing as distinguished from a credit. It is a thing with characteristics essentially different from all other investments. Hence it appeals to a prudent investor. The expectation of such an investor is that not all of his investments will be affected in the same way or to the same extent by sudden changes.

Extent of Business Recovery

There is every indication that this country was entering upon a period of business recovery months before the war started. I believe we can look forward in the immediate future to a satisfactory measure of domestic activity. Business has been definitely on the uptrend since Labor Day. Although war has provided momentum, the fact remains that we are today enjoying a higher level of economic activity than has prevailed generally since 1937, and in some lines, since 1929.

Since war broke out, the railroads of the country have placed orders for new equipment amounting to more than a hundred million dollars. Almost overnight, net operating income of the Class I railroads has soared from less than \$500,000,000 a year to more than \$600,000,000—the difference between just breaking even and being able to pay fixed charges with something left over. Carloadings, which have been running in excess of 800,000 a week, may top the 850,000 mark in October, exceeding the 1937 high.

Steel production has also climbed steadily since August, and the industry today is operating at the highly profitable rate of 90% of capacity. Automobile production has reached and passed the 50,000-car-a-week mark, and will probably maintain that level despite labor

difficulties. Electric power production is at an all-time high. The outlook for reemployment has not been so favorable for more than 3 1/2 years. For business, the decline in unemployment obviously means enlarged consumer purchasing power.

We hear a good deal of talk about what might happen if there were a drastic change in the war situation—specifically, if peace were to come to Europe suddenly at this juncture. Undoubtedly, the war is a strong factor in this present upsurge of business, and the pump-priming effect of war may not, as yet, have pushed goods sufficiently far along the line toward consumption to produce a self-sustaining continuation of business activity.

Yet there are other hopeful signs. A number of industries, including cotton cloth, woolens, lumber, steel, railroad equipment, paperboard, and shoes, report that even if they were to receive little or no new business, orders in hand are sufficient to keep mills busy for the rest of the year. One of the largest air transport companies recently announced plans to spend approximately six million dollars for new equipment to serve America's international air routes. Although our trade with Europe has undoubtedly suffered, our dealings with neutrals, chiefly the countries of Latin America, should increase with virtual cessation of commercial intercourse between those nations and Europe.

Increased business activity, more people employed, and larger payrolls mean rising rents, better occupancy, and greater net earnings from real estate and a more active real estate market.

Real Estate Needs

Think of all the work we have to do. The frontier, which is said by some to have passed, is at our door. Consider

the city planning that was allowed to fall by the wayside during depression years; the areas of our cities which need rebuilding; our zoning laws which in many places are inadequate and antiquated; our tax problems, with their baneful influence on real estate activity. We need to pay less attention to what Chamberlain said to Hitler and what Hitler said to Stalin and more attention to our neighbor who ought to be building a home of his own; more attention to the removal of the junk yard lying next to the city park, and to the elimination of slums.

We have a big housing job still to do. Our large business enterprises are eager for advice and assistance in solving the problem of housing their employees. Far too many people are living on the basis of an automobile for each member of the family and a rented apartment. Perhaps one automobile and a home for the family would be a sounder social and economic goal.

Our Country at War

Now turn to the other side of the picture—our participation in the European war. Our experience in the war of 1914, as we have seen, leads us to the conclusion that from the time of our entry into war there will be an inactive real estate market, growing progressively worse, and that those who derive income and profits from real estate transfers will surely see that profit fall away. Owners of real estate as an investment would face the probability of some

control over rents, and possibly of use and occupancy. However, when these things happen, real estate owners, operators, and Realtors will have plenty of company.

We speak of business and of profits. Who can say what or how business will be carried on and by whom, if we are at war? Can anyone now define the limits of regulation and regimentation? England has pointed the way in the first month of war; the end is not yet.

We have mentioned profits. What profits will be left after we pay taxes far beyond anything we have yet experienced? We think our present debt is huge. What will it be if we now enter upon another war?

There are those who profess to see in our failure to participate in this war a destruction of our whole pattern of democracy; others see the same destruction resulting from our participation. We hear it said that America, and indeed the whole world, cannot survive another World War. We are not here to debate the soundness of such conclusions.

But I do believe, and it seems to me that all of the indications are clear, that if America enters into this quarrel among the nations of Europe, private enterprise as we know it in this country today will cease to exist. The businessmen of our country see clearly that business has nothing to gain and much to lose by participation in the present European struggle. If we are ever to participate in this war, let it be made clear, beyond a doubt, that we do so for other than business reasons.

The Outlook for the Residential Real Estate Market

By RALPH H. RICHARDS*

EDITORIAL NOTE: This article was received after the preceding one by Mr. Pettibone. Taken together, the two articles complement each other and give pictures of the immediate as well as the near-future prospects of the real estate market.

EVERYONE having any direct relation with the building or financing of homes wants to know everything possible pertaining to the future of the real estate market. And for those who believe that prosperity in the building industry is essential to general industrial expansion, the continued improvement in this industry is of even broader importance.

It hardly seems necessary to caution against the reliability of those who claim to foresee future events clearly and accurately. On the other hand, an examination of the factors which are today conditioning the tomorrow is the compass by which all industry is guided. At best, this discussion can only follow the latter method of summarizing the conditions necessary to an improved and active real estate market and appraise the extent to which they are or may be favorable.

When this topic was originally assigned there was the threat of war with a hope for peace. Today war is a reality. What I might have said, had peace continued, must now be adjusted to include the existence of a war economy and its effect on a neutral but wealthy nation. Although the war, without question, has altered the economic outlook and therefore the real estate market, the fundamental factors essential to increasing real

estate activity remain the same even though their status has changed. Coincident with the beginning of the war, numerous studies covering the first World War period, both before and after our entrance into it, were made available. Although there is real value in examining the history of the past as a guide to the present and the future, it is always necessary to adjust historical events to current conditions. Therefore, rather than looking to the experience of the past war or to the repetition of a hypothetical cycle as a basis for predicting the future trend of real estate activity, it seems more important to examine fundamental factors as they are today.

Factors Necessary for a Boom in Real Estate

If a boom in real estate of the proportions reached during the 1920's is to develop, and personally I think the industry would be better off if such could be avoided, it appears to me that the following conditions must be present: (1) a housing shortage; (2) a capacity to buy or build homes as measured by the level of income in relation to building costs; (3) a plenitude of capital available for home-mortgage lending, with favorable interest rates; (4) reasonable real estate taxes; (5) a rising business trend with low unemployment; (6) confidence on the part of business leaders and the general public in the economic and political future of the nation; and (7) financial stability in the fields of housing and home-mortgage lending, including a relatively low mortgage debt, a minimum of institutionally held real estate, and a

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low rate of foreclosures. In developing these points, one factor must be kept in the foreground—namely, that our interest here is in residential and not commercial or industrial building. The two fields do not present synonymous problems, although their periods of activity or decline may coincide and to some extent are interrelated. In appraising the future of residential real estate let us examine each of these seven elements separately prior to arriving at any conclusion.

Housing Shortage

So far as a housing shortage is concerned, there seem to be both agreement and disagreement. Most of us, I believe, would agree that from an inventory point of view there are fewer homes than necessary to house all families comfortably. Substantiation of this observation is found in the results of the real property inventories in various urban areas throughout the country. Further evidence is the decline in vacancies which now run in the vicinity of only 2%. However, the extent of the shortage is a disputed point. It tends to vary with the standards of measurement used, and as a consequence the idealist usually finds the greatest shortage in homes. Probably the largest estimate made public so far places the shortage at 6,000,000 dwelling units, with an additional requirement of 10,000,000 units by 1950. The former of the two estimates, that is, the current shortage, is the equivalent of all residential building for the eight-year period beginning with 1922 and extending through 1929, covering the greatest building boom this country has ever experienced. Both of the above estimates apparently assume a relatively high standard of home life.

¹ Compare annual net increase in number of families in the United States with the number of family units constructed. Data for both are prepared by the Con-

Nevertheless, conservative estimates¹ indicate that for the past decade the number of families has increased more steadily than the construction of new living quarters. At best, however, these data and the results of real property inventories only measure the extent to which a potential market exists. Of equal importance is the necessity for considering the ability of these families to assume the financial obligations which suitable living quarters entail.

Income and Building Costs

This leads naturally to the second factor necessary to further stimulate home building and buying—namely, an increase in the income and savings of potential home owners commensurate with the need for homes. The housing shortage, whatever the estimate may be, can be converted into an active market only to the extent that sound buying power exists. Increased income permits higher rents which, in turn, influence new construction. The important relationship to observe here is not that high rents stimulate building, but that high rents are impossible until family income permits. That rents are low in relation to vacancies is only further evidence of limited capacity to pay more at current income levels.

It is common knowledge that our national income is considerably out of line with our productive capacity. Most recent estimates place our 1938 national income at 64 billion dollars, which is still 20% short of the 81 billion dollar income for the record year, 1929. Building costs, however, have declined but slightly as between these two years. So far as the near future is concerned, even before the outbreak of hostilities there

struction and Real Property Section, Division of Economic Research, Bureau of Foreign and Domestic Commerce.

was evidence that our national income would increase at least gradually, and very definite steps were being undertaken to keep building costs, both labor and materials, within reason. If we assume for the moment that family incomes will increase, their force in generating home building is an uncertain quantity unless building costs can be kept at least at a parity with income.

So far as the element of labor is concerned, there is reason to anticipate pressure for higher wages from that source. Periods of expanding industrial activity are ideal for the attainment of the objectives of labor. Counteracting this trend, however, are two other factors. One is the appeal to national unity which may be an effective means of holding their demands within reason. Labor is awake to this and is certain to adjust its program accordingly. The other is the possibility of success in placing building labor on an annual wage basis which should reduce building costs. Prefaced with these observations, the future price of labor is an uncertain quantity with the greater pressure appearing on the side of higher wages.

The prices of building materials have already increased, although the efforts of the steel industry to maintain present prices are the source of some satisfaction. Also, the possibility of scarcity of materials is much less of a threat today than 25 years ago as a result of the development of great self-sufficiency on the part of the leading nations, in addition to increased productive capacity. It would appear, therefore, that only a long war would bring noticeable pressure on the supply of building materials. Although building materials advanced in price by about 80% in the previous war, most of this occurred three years after the war began.

All factors considered, the supply

factor, in addition to public pressure against rising prices, tends to favor the maintenance of a more reasonable relationship between building material costs and income than was experienced during the last war. The longer the war, however, the more difficult would be the maintenance of a reasonable balance.

Still another factor should be considered, and that is the cost of other items in the family budget—namely, food, clothing and shelter. The experience of the past presumes that living costs will rise—and possibly faster than income. What is different today, however, is that the supply of grains, sugar, coffee, cotton, and kindred items is far more adequate in relation to demand than during the past war. The recent increases in prices may have been the result of misinformed buying on the part of the consumer. The same cannot be said of rents because of the existence of a housing shortage which would permit rents to rise with income. The combination of only moderate increases in costs of food and clothing plus higher rents should react favorably toward increased real estate activity. At best, it can only be cautioned here that the trend of real income must be watched closely in measuring spending power available for new building. Certainly the amount of income available after providing other necessities will condition the extent to which more or less is available for shelter—either as tenant or owner.

Home-Mortgage Funds Available

Another item entering into the cost of home ownership is the rate of interest. A plentiful supply of capital available for home-mortgage lending implies relatively cheap capital, contributing to that extent to the ease of home ownership. It further has the tendency to result in

more liberal appraisals and lower owners' equities, which further encourage home building. There is little doubt that capital is plentiful, excess reserves in the Federal Reserve System having passed the 5 billion dollar mark. Add to this the potential supply of home-mortgage funds available through the Federal Home Loan Bank System. That FHA interest rates were reduced to $4\frac{1}{2}\%$ only reflects more concretely that the money market definitely favored the borrower. Until the beginning of the war there was sound reason to believe that interest rates would continue low and that the home owner would find the capital market favorable to him for some time to come.

It is now necessary to reconsider the status of the capital market and interest rates. Already the basic money market as measured by government securities has hardened. In addition, increased industrial activity is certain to result in a flow of capital in that direction. Evidence of this is the recent steady increase in commercial loans by banks. Although these trends may have the effect of directing capital away from the home-mortgage market into more profitable channels, the tremendous volume of accumulated savings available for home lending, supplemented by the reserve of funds available from the Federal Home Loan Bank System and the Federal Reserve System, hardly point to any danger of a scarcity of funds. The most that could be expected from the greater demands for credit and the possible shift of some funds away from the home-lending field is the possibility of some tightening up of loan requirements, particularly with respect to appraisals, the size of the loan, and the amortization period. Although such steps would tend to reduce real estate activity which was stimulated by careless lending, they

would strengthen the home-financing field.

Taxation

A final important element in the cost of, and of great importance in home ownership, is taxation. It hardly seems necessary to go into detail on this point. In most instances, real property taxes at their present levels are a deterrent to prospective home builders and buyers alike. One glaring weakness is the failure to adjust the tax base to declining values. Rare indeed are the communities in which citizens can look to the future and feel certain that tax relief is in sight. War certainly offers no hope for tax reductions. Although not a cost of home ownership, I might add here that any increase in other forms of taxation will have an adverse effect by reducing the amount of income available for home ownership.

Business Activity and Unemployment

The factors of a rising business trend and low unemployment are closely related. Even before the war, there was sound evidence of a self-sustained rise in business activity in the making, although few expected that it would reach more than moderate proportions. Whereas leading economists had anticipated that the Federal Reserve index would probably not exceed 103 by the end of the year, estimates have now been revised upward to about 120. For those who wish to compare today with 1914, therefore, it is important to observe that, whereas 25 years ago the war began during a period of economic decline, the present anticipated war boom is being heaped on top of a more sound economic condition.

A rising business trend always carries with it greater employment and a wider distribution of income. Thus, a total of

10,000,000 unemployed is certainly a deterrent to any uncontrolled expansion of real estate activity under normal conditions, but the change in outlook resulting from war prosperity necessitates a reexamination of the future. The fact that the working week has been reduced considerably during the last decade is a factor which should speed up the rate of reemployment. I do not believe, however, that we should interpret too optimistically the effect of rising business activity on unemployment. An unfortunate truth is that unemployment figures have not fallen in proportion to industrial expansion in recent years. Recall that when business activity reached its peak in 1937 there were still 8,000,000 unemployed, even though there was a definite shortage in skilled labor before the peak of activity was reached. Thus, even with a war boom, our problem of employment still has to be faced, and so long as 4,000,000 or 5,000,000 remain in the ranks of the unemployed there would be reason to doubt the possibilities of a wide expansion in the building of new homes or the buying of old ones.

Public Confidence

Another factor which I mentioned as prerequisite to a building boom is a high level of public confidence sufficient to stimulate a speculative interest. This does not necessarily imply wild speculation. Increased industrial activity implies expansion of plant facilities and capacity plus the development of new industries. These are long-term undertakings which require some assurance concerning the stability of our political and social economy. Unless there is confidence that the long-term outlook is favorable, industrial expansion possibilities are limited. The steady improvement in business before the war is evidence that confidence was being re-

stored. Increased business opportunities resulting from the war and new markets taken away from the belligerents may further stimulate confidence in the future, although it must be added that such confidence is based on a rather dangerous foundation.

Optimism based on war business must be viewed carefully, particularly when interpreted in terms of its effect on home building. In other words, business activity based on war is abnormal, which in itself may lead to hesitancy in home building, depending on the views of the majority of persons regarding our ability to stay out of the war. Housing is a long-term consumption good, and represents a venture which, under ordinary conditions, the average individual is willing to encounter even though he is aware that there may be occasional periods of economic decline. As a matter of fact, many persons look upon the home as a buffer against the "rainy day," but there are few who would build without hesitancy if they felt that their homes would be lost from the destruction of war or from the destruction of heavy taxes which could logically follow a long war. There is little, if any, evidence as yet to indicate that the average man on the street is fearful for the future of the home which he now owns, but there is a measure of uncertainty and misunderstanding present sufficient to dampen the enthusiasm which is necessary to stimulate many individuals into the desire for home ownership. Sufficient income will not now be the only consideration. As the duration of the war becomes more certain and as the course which the United States will take becomes more obvious, it will be easier to judge the nature of public confidence. It is difficult for me to believe, however, that there can be a sufficiently high level of public confidence to provide the stimulus neces-

sary for a boom in home building, unless driven to that decision purely because of the excessively high cost of renting and accompanied, of course, with a capacity to pay.

Overhanging Debt and Real Estate

Another matter requiring close consideration is the relatively high urban mortgage debt. Today it stands at approximately 18 billion dollars and is only 25% less than that reported in 1930, and almost double the debt on homes in 1922, the beginning of our last real estate boom. Granting that additional mortgage funds are readily available and that the comparison with 1922 possibly should be subjected to some adjustment, it is clear that the present home-mortgage structure in relation to national income is in a far less favorable position than in 1922, and in only a slightly better position than in 1930. It would seem, therefore, that a large portion of the anticipated increase in earnings of individuals may be allocated to liquidation of arrearages of both principal and interest on existing indebtedness. With such a large proportion of the national income already mortgaged, some question arises as to how much farther the market for new real estate loans can be expanded, unless the undesirable element of careless lending enters the picture. New lending, of course, is a prerequisite to expanding real estate activity.

On top of this must be considered the large holdings of real estate by financial institutions, estimates of which run up to 5 billion dollars plus an additional 3 billion dollars judged to be held by private lenders. If real estate activity is to be measured by sales alone, then here is indeed a basis for real activity. But when new building is considered this problem must be reckoned with. The

emotional appeals of a new home and the progress of prefabrication and low-cost housing will undoubtedly support new building. But the owners of foreclosed real estate are no less cognizant of this than the buying public and are adjusting their prices accordingly. Until these properties are worked into private hands the opportunities for extensive new building will be limited. At no time in the past has this limitation been so great.

Conclusions

In summarizing these observations on the factors, all of which must coincide favorably for a boom in real estate activity to develop, I am of the opinion that, had peace continued, it would not have developed at least for some time to come. Admittedly there was a housing shortage, a plentiful supply of capital, low interest rates, and a rising business trend. Although these are powerful forces, they may be misleading without considering the other factors. One limitation on the other side of the picture was the status of unemployment. Few have dared to prophesy just how high the business index must rise to reduce the unemployed to the average of the 1920's. At the same time, it is difficult to visualize the basis for intense real estate activity with millions of potential home owners without any steady source of income. Other unfavorable factors were the large overhanging mortgage debt and institutionally owned real estate, the uncertainty of general public confidence, and the constant threat that building costs would rise enough to discourage further building.

With the outbreak of war, as I have already indicated, these observations are subject to some modification. New investment opportunities will reduce the supply of capital but the backlog of funds available appears sufficiently ade-

quate to preclude higher interest rates. There has been a vigorous rise in business in many lines, but hardly sufficient to visualize anything near an end to large unemployment. The problem of building costs has become even more uncertain, clouded with the confused status of war needs on the one hand, and at least indirect price controls on the other. Higher income, over an extended period, will contribute to a reduction in the home-mortgage debt and institutionally owned real estate, and provide a sounder basis for expansion at a later date. Even improvement in the general level of public confidence is of a sober type. It is confidence that the war will continue, supplemented by fear of the effects of its ending.

I cannot place too much emphasis on the necessity for interpreting what I have said in terms of local conditions. Real estate is essentially a local commodity, although local conditions are frequently, as today, affected by national or international developments. Not all industries will participate in the present war economy in the same degree. Consequently, the most favored localities may experience unprecedented real estate gains, while others may experience contemporary declines. This discussion has of necessity been approached from a nation-wide point of view.

Should all of the above mentioned factors develop favorably to the real

estate industry, there are still sound reasons why the public in general may be reluctant to follow through. Few home owners or dispossessed home owners have forgotten the past 10 years—foreclosures, jerry building, high taxation, the handicap which owning has had on mobility of labor, and other distasteful experiences. The public is today far more awake to the responsibilities of home ownership, and the same stimuli which created a boom in the past may fall short of the mark today. Probably one of the greatest dangers faced during the recent rise in real estate activity was the impetus provided by careless lending. With other and more profitable uses for capital, some relief on this score may be anticipated, but it presents an ever present threat to the home financing institutions which consider seriously their trustee relationship with their investors.

A definite forecast on the extent of future real estate activity is both difficult and dangerous to make. Since the low point in home building was reached in 1934, home construction has increased steadily and, from present indications, the year 1939 will be the best in a decade. There is little reason for anticipating a decline from present levels of real estate activity; on the other hand, it is hardly probable that a boom of runaway proportions such as was experienced in the 1920's will develop.

II. The Theory of Highway Costs and Their Allocation*

By EDWARD D. ALLEN†

THE first installment of this article contained a discussion of the nature of highway costs, an analysis of the general benefit and public utility theories of highway provision, together with a statement of the advantages of the latter theory. There remain to be considered the incidence of benefits of highway use and a method of allocating highway costs.

Incidence of Benefits of Highway Use

Rural Roads. The benefits derived from rural roads immediately prior to the motor age may be quickly summarized. They served to bring products of agriculture and forest to near-by trading centers and to take back the finished goods required by the producers of these commodities. They served farmers and their families as a means of receiving the mail, of getting to and from schools, churches and social gatherings, and of obtaining medical service. Persons living in urban localities used the roads for short trips into the country or occasionally for trips to summer resorts and parks. These uses were economic, social, and cultural and were, for the most part, strictly local in character, though tied in with rail or water transportation of persons or commodities.

The most striking fact which stands out from such a summary is that the main ends served by an unimproved rural road system were much the same as those served by improved roads. Further, most of the benefits were ob-

tained then through *use* of the roads, as they are now. There were even commercial uses of the roads. The chief differences between use of unimproved roads then and that of our improved roads today are: (1) the range and speed of movement were much more restricted; (2) commercial uses were mainly complementary to rather than competitive with other forms of transportation and were typically not for hire; (3) the number of vehicles using the highways was much smaller; (4) the unimproved roads could not provide constant, all-weather access to other sections of the community.

While the roads were supported out of general tax levies on the theory that highway provision was a general function of government, it is interesting to observe that they might logically have been supported in large part by vehicle taxes, since most of the benefits were derived through *use* of the roads as they are today. That they were not was primarily attributable to traditional ways of looking at government functions, to the fact that horse-drawn vehicles did not lend themselves to forms of user taxation as readily as do motor vehicles today, and probably to the fact that pressure was not great for continually larger sums to be spent for highway improvements.

Some writers have made the distinction between unimproved and improved roads the basis of cost allocation between the community in general and motor-vehicle users. They propose to compare the annual cost of our present

* For Part I of this article see 15 *Journal of Land & Public Utility Economics* 269-76 (August, 1939). Footnotes are numbered consecutively with those in the first installment.

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highway system with the estimated annual cost of a system of highways which would be substantially unimproved and which would be assumed to occupy the same location as our present highway system, including both improved and unimproved roads. The ratio of the cost of the unimproved system to that of the present system would then be taken as the portion of present costs to be charged against general taxpayers. With respect to rural roads, the argument underlying this proposal is that the very existence of a system of land-access roads is basic to community life and property values, both urban and rural. Hence, it is argued, the cost of such a basic, unimproved system may properly be charged against general taxpayers. The chief weakness in this proposal lies in the assumption that none of the costs of unimproved roads may equitably be charged to traffic. To the extent that all roads are justified on the basis of traffic, their costs should be borne by traffic in the first instance.

With the coming of the motor-vehicle era, it became more practicable to levy a large portion of the increased costs involved in improved roads on vehicle users. As systems of user-revenues were developed, in turn, excellent reasons were found to justify them. These reasons rested on the general principle that those using a transport facility should pay for it but, in the case of improved highways, this principle itself has found special justification in the substantial benefits which improved roads have conferred on vehicle users. These benefits are of several types: (1) reduction in vehicle operating costs, (2) constant access to all portions of the community,

whether for commercial, educational, medical, social or other reasons, (3) savings in time, (4) increased possible range of movement.

What does analysis of these benefits reveal as to the most equitable way to finance the improved roads which confer them? To begin with, to the extent that higher type roads result in savings in vehicle operating costs to that volume of traffic which previously used lower type roads, it is obvious that a basis exists for the direct "taxation" of traffic. If the higher annual road costs of the improved roads are more than offset by savings to traffic passing over it, there exists no need to consider other types of levies than user "taxes."¹³

In many instances, however, the volume of traffic has been insufficient to warrant improvement of the road on the basis of savings in vehicle operating costs alone. What of the merits of general taxation here? One of the most important of the other types of benefits has been that of constant access (all-weather surface). Constant access itself has yielded benefits of several types. First are purely commercial benefits. The farmer is able to market his commodities at what he considers the most opportune time and to obtain needed supplies exactly when he needs them. The urban merchant serving rural trade is able to count on a volume of business more evenly distributed and probably suffers less risk of loss from spoilage of perishable foodstuffs imported from other regions. Second are consumer satisfactions reflected by road use which may be enhanced by constant access, such as social and religious intercourse with other portions of the community, or between town and country. These

¹³ An exception to this statement occurs where a subdivision of government, such as the county, may wish to proceed with its program of improvement faster than its share of user-revenues from the state will permit. In

this case, resort to general taxation within that unit of government may prove to be the most expedient way to raise the needed revenue.

show themselves partly through the ability of "consumers" to enjoy these benefits precisely at the time desired, partly through increased use of the improved roads. Third are consumer satisfactions derived from the assurance of constant access which are not necessarily reflected in road use at all. Thus, from a farmer's standpoint, one of the most important benefits of living along an improved road is the fact that a service like medical attention is always available, yet that farmer or his family may never have occasion actually to call the doctor at a time when his services would not have been available had the road remained unimproved. Finally are certain communal benefits not related to the use by any one person of the improved road and yet justifying the cost of the road from the point of view of the community. A case in point is provision of constant access to consolidated schools.¹⁴

It is clear that, to a considerable extent, constant-access benefits are not definitely related to use by individual vehicle owners, seem to partake of an undeniable communal character, or are difficult to measure quantitatively. It follows that, where these benefits are used to justify the improvement of relatively low-traffic roads up to the all-weather stage, a definite place exists for general taxation in the area to be chiefly benefited. User-taxation should still be given an important place, however, since many constant-access benefits are definitely related to use and few are separated entirely from use.¹⁵

¹⁴ It is possible to contend that some of the benefits of constant access may be reduced to lower transportation costs. To say, for instance, that a farmer can market his commodities no matter what weather conditions prevail is to say that his cost of transportation during periods of bad weather has been reduced from an amount not justified by the price to an amount justified by the price. Had the price been high enough, means could have been evolved to get the commodities to market over practically impassable roads.

¹⁵ Analysis of the other benefits of improved roads

Cost Allocation for Urban Streets. In the case of urban streets, the problem of equitable cost allocation is equally complex. At first glance it appears that the proportion of the revenues for meeting street costs which can equitably be collected from the private motor-vehicle user is much smaller than for rural highways. There are three reasons for this, as Professor Viner has pointed out.¹⁶ First, whereas use of rural highways for other purposes than motor transportation is now unimportant, city streets are still used to a considerable extent by pedestrian and bicycle traffic and by electric railways, as well as by publicly owned vehicles of various service departments. Second, whereas rural highways serve few purposes other than transportation, city streets serve a variety of other purposes, constituting means of access of light and air to adjoining buildings, serving as fire barriers between city blocks, providing surface and underground space for equipment of public utilities, and serving as recreational areas for city population, where parked or boulevarded. Finally, most of the services of the street department, such as street lighting, dust abatement, removal of snow, and street cleaning are not made necessary solely by the existence of vehicle traffic, serving as well pedestrian traffic and occupants of adjoining buildings.

On the other hand, it is certainly true that as yet urban streets have not benefited greatly from the development of systems of user "taxes," and that a

would lead to much the same conclusion as analysis of constant-access benefits. These other benefits—chiefly savings in time and increased possible range and freedom of movement—are related closely to use but are seldom measurable. To the extent that they are obtained through road-use, the costs of improved roads which produce these benefits for vehicle users should be borne by them.

¹⁶ Jacob Viner, "Urban Aspects of Highway Finance," 6 *Public Roads* 233-5, 260-8 (January-February, 1926).

considerable portion of the costs of such streets should be defrayed out of user-revenues. For the most part, such revenues attributable to urban street traffic have gone to primary and secondary rural roads, with expenditures on city streets from user-revenues being confined in most states to extensions of the state trunk highways through urban localities.¹⁷ Since between 25 and 50% of the total traffic carried by all rural and urban roads and streets is carried by urban streets,¹⁸ and since many urban vehicle-users do all or nearly all their driving on city streets, the situation noted in the preceding sentence seems clearly inequitable.

Reduction of the relative responsibilities of vehicle-users, general taxpayers, and others to a quantitative basis is even more difficult for urban streets than for rural roads. Most of the analytical difficulties met in attempting to allocate costs for roads of the latter type are also met in the case of the former and, in addition, the benefits rendered by urban roads are much more complex. Everyone would probably agree that cities and towns have a right to receive large enough amounts from state-collected user "taxes" to cover such portion of their annual street costs as may "reasonably" be attributed to motor vehicles. Few would agree as to what constitutes a "reasonable" amount. Any equitable solution of the problem, however, will

have to give consideration to at least three factors: (1) relative traffic on urban streets and other road systems, (2) costs of producing street services, and (3) vehicle and non-vehicle user-benefits.

To begin with, the writer suggests that urban streets should be entitled to receive as a *maximum* amount the same percentage of total user-revenues as traffic on urban streets bears to total traffic on all road and street classifications.¹⁹ Where the annual costs of producing street services for a given plant are in excess of the amounts which would be received under this method of allocation, the remainder of the costs would be met out of non-vehicle user levies, which would probably mean general taxation in most localities. Where, however, the costs of producing street services are less than the maximum defined above, such costs would constitute the upper limit to receipt of user-revenues by urban localities. Ordinarily, moreover, even this upper limit would merit reduction in order to provide for continuing support of urban streets by other than vehicle-user taxes, since our analysis above has indicated that the case for continuing support of urban streets by other than vehicle users is a strong one. Even so, acceptance of the above principles would automatically increase the share of user-revenues going to urban streets in most states at present.²⁰

¹⁷ Data from the Bureau of Public Roads on disposition of state highway imposts in 1937 shows that, of \$1,195,312,000 net funds distributed to various purposes, only \$43,124,000 went for work on city streets, exclusive of urban extensions of rural highways. In only 15 states were grants made to urban localities, and in only 11 were the amounts in excess of \$50,000.

¹⁸ The exact percentage in a given state will depend on the proportion of rural and urban vehicle-users to the total of both, as well as on the percentage of total driving of each group on urban streets. The percentage range given above is an estimate based on actual road-use studies recently conducted through the state highway planning surveys.

¹⁹ What *total user-revenues* should equal, given the an-

nual costs of the highway and street plant, will be indicated later. It must also be remembered that the total involved here refers only to user-revenues raised for the support of a given plant, not to the larger sums which "total user-revenues" may actually constitute in a state whose plant is expanding. A "complete" theory of highway finance must concern itself, of course, with financing capital improvements as well as costs of a given plant.

²⁰ Statement of these principles has been given with reference to urban streets as a class. In practice, it would be necessary to differentiate between urban localities of varying population classifications, since density of traffic is greater in larger than in smaller cities and towns.

(Footnote 20 continued on page 408)

Several possible objections may be raised to this method of determining the share of street costs to be borne by vehicle users. First, it may be objected that such a method is not practicable in view of insufficient traffic or road-use data and insufficient data on annual costs. The objection with respect to road-use data is not admissible, with exhaustive information on road-use becoming available as a result of the Planning Surveys previously mentioned. Cost data are still meager, however, and will only become available in the desired form as the result of engineering studies into replacement costs and rates of depreciation of street improvements, together with a much better accounting system for street expenditures than most urban localities employ at the present time. In the meantime, cost estimates should be possible within a margin of error on the basis of street expenditures for improvements and maintenance in the past.

Another objection which may be raised is that this method still does not determine quantitatively what the relative contributions of vehicle users, general taxpayers, and others should be toward meeting the costs of city streets. This is a valid objection, and one to which purely economic analysis can at present give no quantitative answer.

(Footnote 20 continued from page 407)

Thus, the maximum amount assignable to urban streets as a class on the basis of relative traffic would be divided among population classifications of urban localities according to the relative share of each sub-class in total traffic on all urban streets. Within population classifications, determination of annual costs for streets of a given locality would be necessary in order finally to establish the claim of that locality to user-revenues.

²¹ The word "ordinarily" is used to indicate that at present urban localities in most states can make out a strong case for a claim on user-revenues equal to the maximum amounts indicated above. Thus, in the past, urban localities have not received their equitable share of user-revenues. Consequently, street costs which should have been met in considerable part out of such revenues have been met almost entirely out of special

Thus, to take one instance, where total costs of providing street services are below the amount which an urban locality can claim on the basis of relative traffic, all that can be said is that such costs define a clear maximum amount to be contributed through user-revenues, and that ordinarily²¹ a substantial part of such costs should be financed out of levies other than vehicle-user taxes. Furthermore, consideration of relative traffic carried by urban streets in relation to user-revenues now allocated to such streets in most states argues for a sharp upward revision in distribution of user-revenues to urban localities toward the maximum limits indicated. How much upward revision there is to be in the future will depend on the varying political strength of urban and rural groups in states where the issue is raised.

The problem of cost allocation between vehicle owners and general taxpayers has now been explored for both rural and urban portions of the highway plant. If any general conclusions can be drawn at this point, they are: (1) for rural portions of the highway plant, an analytical basis can be found for meeting most of the costs of unimproved and improved roads through "taxation" of vehicle-users, and the sphere of general taxation should be reduced to as low a

assessments and general taxation, so that, in many localities, street-improvement programs have lagged behind because of limited sources of revenue. Where research indicates this to be true, it is submitted that injustice to urban localities has been done in the past, and that assignment to such localities of the maximum amount of user-revenues to which they are entitled on the basis of traffic or annual costs is defensible, even though the sphere of general taxation for street purposes is rendered negligible for a time. Given continued improvement of the urban plant in the future, annual costs will rise and the relative importance of general taxation for street support may reasonably be expected to rise again, so that adoption of the plan proposed does not mean that property owners will permanently escape their share of street costs.

point as is politically possible. (2) For urban portions of the highway plant, the share of costs to be borne by vehicle-users should be sharply increased, though, in the long run, the share to be borne by property-owners should be higher than in the case of rural roads. (3) A precise determination of the relative responsibilities of vehicle-owners and general taxpayers for the costs of each particular road and street is impossible solely on analytical grounds. Yet it is clear that some quantitative solution should be attempted, and road-use and traffic studies now being completed in many states provide some reasonable criteria for the necessary allocation of costs. These studies show, among other things, the percentage of total vehicle miles of traffic on all road and street systems which is carried by each—information which proves extremely useful in devising a quantitative solution to our problem.

A Suggested Basis for Cost Allocation

To begin with, it may safely be assumed that the entire annual costs of the state trunk highways should fall on vehicle-users. This assumption is supported by the previous analysis in this article, by most students in the field, and by the facts of present systems of highway finance in the various states. Thus, in 1936, only 11 states raised any funds for state highways out of general tax levies. Next, it is suggested that the provisional²² total amount to be raised by user "taxes" for the entire highway plant should be determined by taking the annual costs of the state trunk system and dividing them by the proportion of total miles of traffic on all systems

which the state trunk system carries. If, for example, the annual costs of the trunk system are \$15,000,000 and if this system carries 50% of the total traffic, then $\$15,000,000 \div .50$ or \$30,000,000 would be the provisional total to be raised through user-revenues, and \$15,000,000 would be available for allocation to other systems than that of the state trunk roads. Finally, costs of secondary roads and urban streets not defrayed through user-revenues allocated to them would be met for the most part from general taxation.

The method proposed seems a logical basis of departure for determining the responsibilities of vehicle-users as a class. Agreement is widespread that the costs of the state trunk systems should be covered out of user-revenues. Information is now becoming available as to what percentage of total traffic is carried by this system. It seems reasonable, therefore, that the costs of the state trunk system should bear the same relationship to total costs chargeable to vehicle-users as traffic on the state trunk systems bears to total traffic on all road and street systems combined. Reduced to a simple formula, this becomes:

$$\frac{\text{Costs of State Trunks}}{\text{Traffic on State Trunks}} = \frac{x}{\text{Total Traffic}}$$

where x is the provisional figure for total costs chargeable to vehicle-users.

Given a provisional total to be raised through vehicle-user-revenues, it seems equitable to assign these revenues to the various road systems in terms of the relative traffic carried by each, since use of the roads²³ is itself the factor which produces vehicle-user revenues from

²² "Provisional" for two reasons: (1) if revenues are to be raised to finance large capital improvements, these improvements may justifiably be made in many cases out of user-revenues; (2) even as far as allocation of costs of the present plant are concerned, the figure ob-

tained by the above method may be subject to alteration, as the discussion in the body of the article indicates.

²³ Or the privilege of using them, in case of the license fee.

gasoline taxes, license fees, and "third-structure" taxes such as the ton-mile tax.

The figure obtained for x in the above formula, however, would not be regarded as final. On the one hand, if this method resulted in assigning a total amount of user-revenues to systems other than the state trunk system which was in excess of their total costs, then the provisional amount of user-revenues to be raised would be reduced. The minimum reduction would be to an amount not in excess of these costs, and the reduction would be greater where analysis of benefits derived from secondary road and urban street use justified continuing support from general taxation. On the other hand, if the proposed method resulted in assigning an amount to secondary roads and urban streets considerably below their annual costs, then research might well indicate justification for increasing the "original" amount of user-revenues to be raised, for decreasing reliance on general taxation through devising other methods of road support, or for both.

A case for decreasing reliance on general taxation without increasing reliance on vehicle-user revenues is found in that considerable mileage of secondary rural roads which carries almost no traffic except that serving the relatively few families who live along these roads. If the term "local-use" road has any significance, it is in connection with this mileage, for which the alternative to financing by vehicle user-revenues should not be general taxation but special levies upon these residents. If such levies are not legally or politically possible, then such mileage should be allowed to return to the status of private road and cease being a burden on either general taxpayers or vehicle users.

In summary, the method proposed for determination of the quantitative responsibilities of vehicle-owners, general

taxpayers, and others for costs of the highway plant is as follows:

- (1) Determine the provisional amount to be raised from vehicle-users by dividing the annual costs of the state trunk system by the proportion of total vehicle traffic on all systems which it carries.
- (2) After providing for the costs of the state trunk system, allocate the remainder of the revenues among the secondary systems and urban streets according to the relative amount of traffic carried by each.
- (3) Adjust the provisional figure for user-revenues upward or downward as research into costs and benefits of particular roads seems to warrant.
- (4) Study low-traffic rural local roads with a view to financing them in ways not calculated to burden either general taxpayers or vehicle-users or, if this is impossible, allow many of them to return to the status of private roads.

Cost Allocation among Vehicle Classes

Coordinate in importance with the question of cost allocation between general taxpayers and vehicle-users is the question of cost allocation of that portion of total costs properly chargeable to vehicle-users as a class among various types of vehicles, particularly as between private passenger vehicles, busses, and trucks of various weight classes. Two general methods have been proposed as solutions to this problem. One, the ton-mile method, starts with the assumption that, within the kinds and types of permitted use which the law may define, a system of highways is provided which is thought to be adequate. It assumes that the costs of this system should be distributed according to benefits received from it, that use is a reasonably satisfactory objective measure of benefits, and that ton-miles are a satisfactory measure of use. Thus, it gives consideration to the factors of both weight and distance in determining the benefits derived by a particular vehicle from use

of the highway plant and hence in determining the charges which each vehicle should bear.

The other, the so-called increment method, is based on engineering studies of the effects of heavier and wider vehicles on the costs of road construction and maintenance. It proceeds on the assumption that vehicles requiring special investment should bear all the cost of the special investment made because of them, in addition to their share of the normal investment. It is an engineering method of allocating costs. Thus, strictly speaking, the ton-mile method is a measure of comparative use, whereas the increment method is a measure of comparative cost.

An excellent statement of the increment theory is found in the report entitled "Regulation and Taxation of Highway Transportation," published in 1933. This report contains the recommendations of a joint committee of railroads and highway-users as follows:

"The basic cost of constructing, improving, and maintaining a given highway should be determined from a highway designed for private passenger vehicles and other vehicles commensurate therewith. All vehicles using such highway should pay their proportionate share of that total as a base tax. The total additional cost of construction, improvements and maintenance to make a road suitable for a type of vehicle requiring such additional cost should be shared by each vehicle of that type and each vehicle of greater size. Thus each group should share in the base cost plus all increments of cost up to and including the cost required by it."

If highway engineers could agree on the extent to which heavier and wider vehicles do occasion increments in cost, application of this method would do much to promote an economic allocation of resources between motor transportation and competing forms, since

each vehicle would be forced to pay its full share of the cost of facilities necessary to accommodate it or cease using the highways. Actually, one discovers violent disagreement among engineers concerning the extent to which heavy vehicles are responsible for increments in construction cost represented by improved highways or for increased maintenance costs over such highways. There seems to be agreement that the correct measure of the force exerted upon a road is not the gross weight of a vehicle, nor even the static wheel load, but rather the impact force, which varies with the wheel load, speed of vehicle, type of road, and tire equipment. There is agreement, too, that heavy impacts on a road make a strong surface necessary, or increase maintenance costs on a weak surface. Apparently no agreement exists, however, concerning the *extent* to which weight, wheel load, or impact force has actually increased expenditures on our roads beyond the point at which they would have stood anyway in the absence of heavy vehicles. One group of engineers contends that the bulk of the added costs represented by a higher-type over a lower-type road or by pavement of more than a basic thickness or width should be attributed to the heavy-vehicle classes.²⁴ On the other hand, in presenting an exhaustive paper on "The Effect of Heavy Motor Vehicles on Highway Costs" before the Highway Research Board in 1934, F. Lavis, consulting engineer, concluded:

"Width, gradients and alignment of modern highways are determined almost entirely by the requirements of private passenger vehicles. The presence of the heavier vehicles may require some additional thickness of pavement, but it is probable that this increased thickness may be economically justified by longer life and reduced maintenance.

²⁴ Representative of this group are C. B. Breed, Clifford Older, and William S. Downs, consulting engineers,

who have made numerous studies on highway costs and their allocation, especially for the railroad interests.

It may be justified by the requirements of private automobiles."²⁵

Further support for Lavis' general point of view is found in the contention repeatedly advanced by the Bureau of Public Roads that, even if heavy trucks had not been developed, the elements would have required pavements and subgrades of strong construction because of sharp and sudden changes in temperature and moisture conditions affecting both.

A sharp divergence of opinion also exists with respect to the effect of heavy vehicles on maintenance and road life. T. H. MacDonald, Chief of the Bureau of Public Roads, has argued that, if a main artery of travel be so constructed as to carry a certain maximum wheel load permitted by law, maintenance cost on such a road will not be affected by repeated passages of such vehicles, and that on lower types of roads occasional passage of heavy vehicles will cause no breakdown in the road. Many engineers, on the other hand, argue that what is called the "fatigue of construction materials" and "the impact effects of heavy wheel loads on pavements" will operate both to increase maintenance costs and decrease road life when a road is subject to repeated passages by heavy motor vehicles.

In view of the range of disagreement on what interpretation is to be given the increment method for purposes of devising the "correct" types of levies for various classes of vehicles, it seems clear that the method cannot at present be used. Possibly the principles underlying it may be applied in some degree through the ton-mile method of cost allocation, to the analysis of which we now turn.

²⁵ Anson Marston, Dean Emeritus of Engineering at Iowa State College, supported Lavis' conclusions with the statement that "the present opinions of those responsible for the design and construction of pavements in Iowa is that if there were no commercial buses and trucks using these roads . . . we would still build about the kind of system we have at present as far as thicknesses go."

The Ton-Mile Method Examined

If the ton-mile method is utilized, every ton which moves one mile over the highways will pay a fee which, when multiplied by the number of tons moving over the highways in a year, will equal the total amount which is to be levied against motor-vehicle users in that year. This means that, if a vehicle and load weighing 40,000 pounds travel one mile, the charge will be 10 times as much for the privilege as the charge against a 4,000-pound vehicle and load would be. The charge will be on the basis of use, but it can be seen that certain elements of the increment method are implied, as the heavier vehicle does pay a much greater fee than the lighter one.

Application of the ton-mile method to determine whether or not a given class of vehicle is meeting its "fair" share of that portion of total highway costs assigned to motor vehicles as a class is as follows: Various vehicles using the highways are separated into weight classes (empty), the average weight (loaded), and average annual miles travelled by vehicles in each class is determined, and the ton-miles travelled are computed.²⁶ The annual costs to be borne by vehicles as a class are then apportioned among the various subclasses on the basis of the ton-miles travelled. The sum assigned to each class is divided by the number of vehicles in that class to give annual cost per vehicle. These annual costs are then compared with the amount now being paid by the average vehicle in each class through registration fees, gas tax, and other user taxes to determine whether or not existing fees are reasonable.²⁷

²⁶ Necessary data for these computations are now available in most states as a result of the state highway planning surveys.

²⁷ From this description, it is obvious that to adopt a ton-mile basis for allocating motor-vehicle charges does not necessarily mean that existing methods of raising user-revenues must be thrown over, and a ton-mile tax

(Footnote 27 continued on p. 413.)

Earlier in this article it was argued that the bulk of the benefits from highways and streets are secured through vehicle use and that therefore the bulk of highway costs should be assessed against vehicle-users as a class. If highway use is also to be made the basis of cost allocation among classes of vehicles, the ton-mile method would seem to be indicated. Whereas the increment method was found deficient on account of disagreement among engineers as to its practical application, the ton-mile method also has deficiencies, less of a practical than of an analytical nature. First of all, it does not necessarily charge each class of vehicle with the costs which that class may have occasioned. Costs incurred in order to provide a highway adequate for a certain class of vehicle are not necessarily proportionate to ton-miles of travel by vehicles of that class. Second, although the ton-mile method premises cost allocation on the basis of benefits received, it cannot be proved that benefits derived from road-use are proportional to ton-miles of travel. Third, the ton-mile method is an imperfect measure even of highway use. It does not take into consideration the relatively greater occupancy of the highways by large trucks and busses than by passenger cars. Both trucks and busses are generally of greater width than passenger cars and often operate to slow up other traffic on the highways. This suggests that the ton-mile rate should be graduated, if the ton-mile method is used.²⁸ Finally, the ton-mile method cannot actually establish an equal ton-mile rate

for every vehicle of a given class as long as forms of user-levies—such as license fees and gas taxes—are retained which do not themselves vary directly with ton-miles travelled.²⁹

Thus, for quite different reasons, neither the increment nor the ton-mile method is satisfactory if it is desired either (a) to determine whether certain classes of vehicles are at present subsidizing certain other classes, or (b) to determine exactly what contributions in user-taxes of all types each vehicle-owner should make if his vehicle is to pay its "full" share of highway costs. Since the increment method cannot be used for practical reasons, cost allocation on the basis of benefits received is an alternative which seems "reasonably" equitable. Allocation of cost on the general basis of use seems "fair," and it should be remembered in any case that the ton-mile method does itself implicitly contain certain elements of the more logical increment method.³⁰

Analysis of Objections to the Theory

If the general theory of highway costs and their allocation which has been developed in this article should be formally accepted and made the basis of continuous revenue-raising for highways, certain results should follow. First and fundamentally, it should tend to promote an economic allocation of resources both as between expenditures on highways and alternative uses of the same resources and as between commercial highway transportation and competing forms of transportation service. Second,

²⁸ Such graduation, however, does not follow strictly from the ton-mile method as such. The occupancy factor does not vary with the ton-miles travelled.

²⁹ This defect, of course, might be lessened by adopting a ton-mile tax as the sole form of user "tax" for all vehicles. The administrative problems involved, however, are so serious as to preclude such a course of action.

³⁰ Where used, the ton-mile method should give consideration to the occupancy factor already noted and should probably be graduated upward in the case of larger and slower moving types of vehicles.

(Footnote 27 continued from p. 412.)

adopted as the sole user levy. It is possible to analyze existing revenues from various sources on a ton-mile basis. This has already been done in a number of studies, notably a paper on the "Ton-Mileage Basis for Allocating Motor-Vehicle Charges" by Ralph Moyer, Professor of Highway Engineering at Iowa State College and "Study of Missouri Highway and Street Costs Chargeable to Motor Vehicles," published by the State Highway Commission of Missouri, 1937.

it should tend to eliminate elements of subsidy remaining in our systems of highway finance, by general taxpayers to vehicle-users as a class, and, to a less certain degree, by some classes of vehicle-users to other classes. Finally, it would probably mean a further shift away from property (general) taxation toward forms of user-revenues in many states and relatively heavier "tax" burdens on heavier classes of trucks than at present, though the case for these changes will be dependent on further research into costs and revenues in each state.

Objections to the public utility theory are important, but not necessarily insuperable. The main ones are: (1) There is insufficient information on highway and street valuation and on highway depreciation to make possible accurate figures on annual costs. (2) The procedure could not be put fully into practice for political reasons. It would involve a further shift from taxes on property to "taxes" on vehicle-users as a basis of meeting highway costs and such a shift would be difficult to accomplish when voters who are vehicle-owners outnumber voters who are property-owners (general taxpayers). (3) Even if politically feasible, the shift toward heavier user-revenues might result in "diminishing returns" if put completely into practice. Thus, it is argued, higher user "rates," whether in the form of license fees, gasoline taxes, or ton-mile taxes, might establish a new equilibrium in the demand and supply of highway transportation at a point where the demand curve is elastic.

With respect to the first objection, it is true that, at present, knowledge of highway costs is far from complete. Nevertheless, there is cause to believe that within a few years estimates of annual costs can be made fairly accurate. Standardized accounting systems for the highway plant are now being worked

out and soon will be available. They will likely be used first of all for highways controlled and operated by state highway authorities and later may be extended to cover road systems operated by the counties, cities, or other subdivisions of government. As time passes and the present highway plant is worn out and replaced, figures on actual investment costs can be made more and more complete. In the meantime, replacement costs of those portions of the plant for which actual cost data are not now available can be estimated and used in a valuation base to supplement actual cost data. Comprehensive depreciation studies on the service life of various types of surfaces under various types of traffic conditions are also being conducted under the supervision of the Bureau of Public Roads, and these will lead to increasingly accurate knowledge concerning highway depreciation. Finally, if the method of determining the relative responsibilities of vehicle-users and general taxpayers outlined in this paper be accepted, the total amount to be raised from vehicle-users can be approximately determined even if we have data on the costs of the state trunk systems only, and these data will shortly be made available through the State-wide Highway Planning Surveys.

The second objection is more serious. It is characteristic of a democracy, where all have equal votes but where wealth and income are also very unequally distributed, that there is nothing to prevent the majority of voters from favoring adoption or maintenance of types of taxes which enable them to escape from "burdens" which they might otherwise have to bear. If the view on highway finance developed in this article is sound, however, then user-revenues should not be regarded as taxes at all, but as a form of price paid for a public utility service. Can this point of view find acceptance

to a sufficient extent to make possible higher exactions in the form of user-revenues which might be required in many states? Possibly not quickly, yet there are certain facts which do not suggest a wholly pessimistic conclusion. Several states have succeeded in establishing relatively high levels of user-revenues without serious political repercussions. Again, there is a continuing belief that the property tax has been loaded with too large a portion of the expenses of state and local government. Finally, urban voters—most of whom are either vehicle-owners or members of a family in which at least one vehicle is owned—may be induced to favor the plan by the promise that urban localities will receive substantial portions of the larger user-revenues to be raised. Given time, it may be hoped at least that processes of political education may be carried through which will convince many voters of the merits of the public utility concept of the highway plant which has been defended in this article. In the immediate future, however, the percentage of total revenues for highway purposes which it may be possible to raise in the form of user-revenues may be less than the "ideal" or "optimum" amount.

The answer to the final objection is that any increase in user-revenue schedules which may be called for by the proposal here outlined is unlikely to produce a marked diminution in either vehicle ownership or highway use for at least two reasons: (a) because user "taxes" are a relatively small item in total vehicle operating costs and (b) because of the lack of available substitutes for the types of service or benefits obtained

through highway transportation.³¹ An elaborate study made by Professor Marc C. Leager bears this out.³² He investigated increases in gas-tax rates and in license fees in a large number of states for the period 1925-32. He concluded:

"There is but a slight relationship between changes in the amount of the gas tax per gallon and changes in the intensive use of automobiles. . . . The gas tax has not shown any signs of having reached the point of diminishing return. . . . Further, the extensive use of cars does not depend on a low level of license fees being in force. Like the gasoline tax, the license fee has not reached the point of diminishing return."

Conclusion

In summary, it may be pointed out that this article has simply attempted to lay a basis for a logical approach to the problems of highway finance, not to grapple with all those problems. An attempt was made to attack the major problems of highway finance through the public utility or commercial approach. In the course of the analysis, the emergence of the highways as a great transport facility was indicated, the nature of highway costs was reexamined and the concept was broadened, the close relationship between road use and road benefits was traced, and a method of cost allocation was outlined which would place the major share of highway costs on the shoulders of vehicle-users. The major conclusion which emerged was that the public utility or commercial approach to highway finance, more than any other, should tend to produce an economic allocation of resources and an equitable distribution of highway costs among the various groups in the community.

³¹ If the proposed method involved a sharp increase in the rates of taxation on heavy trucks, however, some shift in commodity traffic back to the railroads might take place. To the extent that this was caused by the removal of a "subsidy" element in the trucking field, it would be altogether desirable, of course. That such a

shift would affect total highway traffic, however, seems unlikely in view of the relatively small portion of this traffic which is composed of heavy trucks.

³² "Financial Management for Highways" by Marc C. Leager, Bulletin No. 8, Engineering Experiment Station, North Carolina State College, 1933.

Toward an Understanding of the Federal Home Loan Bank System

By MORTON BODFISH*

THE passage of the Federal Home Loan Bank Act in the summer of 1932 marked the close of the first of a series of discussions over the purposes of a reserve system for home-financing institutions. Neither witnesses at the hearings nor members of Congress during the course of the debates on the measure quite agreed upon its primary purposes, and many claims were made, some without adequate foundation, as to what the proposed system would accomplish. Since the establishment of the Federal Home Loan Bank System, its purposes and operations have continued to be considered. In recent issues of *Bankers Monthly* Ray B. Westerfield, Professor of Economics at Yale University, has raised some interesting questions in two articles entitled "An Analysis of F.H.L.B. Lending Policies" and "F.H.L.B. Law Discourages Borrowings from Correspondent Banks."¹ Discussions of this sort are valuable in clarifying and stimulating thinking about the System, its policies, and its practices. Consideration of the problems encountered is particularly important in the case of an organization which is based upon private enterprise and existing local institutions on the one hand but which also involves federal legislation and administration on the other.

This article is not written in a spirit of controversial reply to Professor Westerfield; he has attained an eminence in the field of finance, particularly in commercial and mortgage banking, such that his thoughts are entitled to the most careful

consideration and some of us not only admire his achievements but also deeply respect his point of view even though we may not agree with all that he says. The aim of this article is to develop some of the specific subjects which Professor Westerfield brought up in his articles and to discuss them, in some instances, from another angle.²

One point should be made clear at the outset. Regardless of frequent comparisons with the Federal Reserve System (some of them to the effect that it was to be a central bank for mortgage-financing institutions) during consideration of the Home Loan Bank bill by Congress, the originators of the legislation did not intend to create in the Federal Home Loan Bank System a central banking structure. Comparison of the proposed Home Loan Banks with a banking system already in existence and somewhat analogous to it was a simple method of helping the public and members of Congress who were unfamiliar with reserve credits and organizations for home financing to understand the proposal. This natural comparison was perhaps unfortunate, since it has given many people a misconception of the nature of the Federal Home Loan Bank System and has provoked some criticisms of the System on the grounds that it has failed to exercise its functions as a central or mortgage discount bank and has not measured up to what its founders purported it to be.

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¹ *Bankers Monthly*, July and October, 1939, pp. 387 and 598, respectively.

² Other answers to Professor Westerfield's articles have been made by two members of the Federal Home Loan Bank Board, Dr. W. H. Husband writing in the September, 1939 issue of *Bankers Monthly*, p. 530, and Fred W. Catlett speaking before the Washington Savings and Loan League Convention, October 31, 1939.

Not a Central Bank

A cursory study of the nature of a central bank and the nature of the Federal Home Loan Bank System, as set out in the Act, shows that the System never was intended to function as a central bank. According to generally accepted definitions of a central bank, such an institution functions as a reserve depository, as a lender of last resort or a "bankers' bank," as a government depository and fiscal agent; has a monopoly of note issue; and is charged with the responsibility of controlling the nation's credit.³ A brief picture of the functions and avowed purposes of the Home Loan Banks will show that they were not meant to be or should not be operating as central banking institutions.

The Federal Home Loan Banks clearly serve always as a "bankers' bank," and not only as a lender of last resort. If the term "banking" is used in its broadest sense, these reserve Banks are actually "mortgage bankers' banks." As the Honorable Robert Luce, Representative from Massachusetts, pointed out at the hearings held by the Sub-Committee of the Committee on Banking and Currency of the House of Representatives,⁴ the principal purpose of the proposed system was to strengthen existing home-financing institutions by providing them with a permanent institution from which they could borrow on the security of their qualifying mortgages. The aim was to serve those institutions both during the then-existing emergency and later on in their efforts to provide home-mortgage credits during normal periods.

This purpose was also stressed by William E. Best, then President of the United States Building and Loan League and a member of the original Federal Home Loan Bank Board. He told the

Senate Sub-Committee⁵ that the proposal was to establish a reserve system in order that home-financing institutions would have available a reservoir of credit which they might use to balance seasonal and regional fluctuations in the supply of and demand for funds in relatively normal times and also to meet demands in the immediate and recurring emergencies or depressions; this was to be done so that in the long run confidence in these institutions would be maintained and home ownership encouraged as a result of the orderly consumer-credit activities of local institutions.

The fact that today over three-fourths of the outstanding advances are secured and written for long terms emphasizes the System's function of supplying normal requirements for capital funds to meet the demands for loans over and above those which can be provided out of local capital. Certainly one of the fundamental objectives of the System is to enable community home-financing institutions to have access to a supply of low-cost capital such as is available in the central money markets when the demand for mortgage funds exceeds the supply of private share-capital accumulated in the institutions. This does not mean functioning solely as a "lender of last resort."

As regards the function of depository for members' idle funds, provisions were made for acceptance from members of both time and demand deposits, but there is no requirement that they shall keep some funds on deposit at the Banks. At the time the various bills were being discussed, the consensus was that, contrary to the case of the Federal Reserve Banks, it was not entirely necessary that the Federal Home Loan Banks serve as depositories of cash reserves for their

³ Ray B. Westerfield, *Money, Credit and Banking* (New York: Ronald Press Inc., 1938), p. 661.

⁴ *Hearings*, 1932, p. 16.

⁵ *Hearings*, Pt. 2, 1932, pp. 285-8.

members. In the opinion of some witnesses the depository service would be helpful to the members, but such service was not considered fundamental to the operation of the System.

This optional depository arrangement is in direct contrast to the requirement of the Federal Reserve System that the member banks keep a definite or a large part of their cash reserves on deposit at the Reserve Banks. These deposits are fundamental in the operations of the central banking system, since in this way the cash reserves are pooled and stand as the base for credit expansion, and, furthermore, provide the means for the Reserve Banks' influence on the nation's credit resources. In contrast to the essential nature of this reserve deposit function for Federal Reserve Banks, this function is only incidental to the operations of Federal Home Loan Banks.

With reference to note issue, no comparison exists between the Federal Home Loan Banks and the central banks of the various countries, since the Home Loan Banks lack this function entirely. In the matter of service as a depository of public funds and as fiscal agent of the Federal Government, Section 14 of the Federal Home Loan Bank Act gives these powers to the Banks but they are more nominal than real, since this section was included in the Act primarily to assure its constitutionality.⁶ Furthermore, this power is not vital to the operation of the System and no real comparison can be made with the functions of the Federal Reserve System in this respect.

As recently pointed out by the Honorable Fred W. Catlett, member of the Federal Home Loan Bank Board,⁷ the accusation that the Federal Home Loan

Bank System was represented to function in the home-mortgage-finance field in a scope identical to the operations of the Federal Reserve Banks in the commercial credit field is an indictment not of the System but rather of those individuals who so represented it. Clearly the Federal Home Loan Banks as organized were not intended to operate as central banks if the ordinary functions of a central bank are used as criteria.

Precedents for the System

A clearer concept of the functions and operations of the Federal Home Loan Banks is obtained if the origin of the basic feature of the System is brought out. The chief precedent in this country for the Federal Home Loan Banks was the Land Bank of the State of New York, later known as the Savings and Loan Bank of the State of New York established by an act of the New York legislature in 1916. At the time the Home Loan Bank Act was being drafted, this bank was making long-term loans to member savings and loan associations⁸ from capital obtained by sale of collateral trust bonds to members or outside purchasers. Both of these features have been incorporated into the Home Loan Bank System, as is readily apparent from an examination of its operations. Another domestic precedent for the issuance of credits to assist in home-mortgage financing indirectly through local institutions instead of dealing directly with the borrower is found in the Federal Land Banks. The Land Bank System, however, lacked one fundamental feature of strength which is found in the Home Loan Bank System—namely, the thrift and savings programs offered to

⁶ *Smith v. Kansas City Title & Trust Co.*, 255 U.S. 180 (1921).

⁷ Address, *op. cit.*, n. 2 above.

⁸ The term "savings and loan association" is used here in the generic sense to include building and loan associations, homestead associations, and co-operative banks, all of which are variations, primarily in name, of their forerunners, the building societies of England.

the public by the individual local lending institutions. With these individual lenders responsible for the safety of local capital invested in their institutions, their lending policies are certain to be more conservative, with the result that whatever bank money may be invested in the institutions will benefit from this fact.

At the time the proposal for creating a national mortgage-financing system was being considered, government officials and home-financing leaders were put face to face with two alternatives: (1) creating a system based on financing by local community institutions having capital essentially long term in nature with supplementary assistance from regional banks having a great deal of local autonomy; or (2) following the easier method of developing a politically popular but dangerous system involving direct government credit control and responsibility over home-mortgage lending and using short- or long-term capital supplied by central money markets and commercial credit institutions. Noteworthy precedents favored financing through locally owned and managed institutions. These included the Swedish mortgage banking system¹⁰ and the building societies in Great Britain which are specialized cooperative thrift institutions doing 95% of the home-mortgage lending in that country. Furthermore, the 100 years of successful home-mortgage operation by local savings, building and loan associations in this country gave evidence of the inherent soundness of this method of operation. Experience from abroad as well as from our own country lent support for belief in the strength and effectiveness of the local institutional method of home financing.

¹⁰ This includes the Swedish Cities' Mortgage Bank (Konungariket Sveriges Stadshypotekskassa), which had been operating on a reserve lending basis since

The two mortgage banks in Sweden grant loans on the security of first mortgages to urban mortgage associations, which are local organizations operating under some governmental supervision and lending on improved urban real estate. The Swedish Cities' Mortgage Bank, the older and larger of the two mortgage banks, is under the direction of a Board of five members responsible to the Government. It obtains its funds by the issuance of its own bonds secured by mortgage loans made by the urban mortgage associations and strengthened by a guarantee fund of government bonds. Both straight and amortized loans are made up to 20 years' maturity. This system, with its reserve credit facilities available to local lending organizations, has been very successful in Sweden and borrowers dealing with the local institutions have been able to obtain loans at very moderate rates since its establishment. This system certainly had an influence in the decision to establish government reserve banking institutions for making loans to local home-financing institutions from capital obtained by the sale of bonds secured by home-mortgage loans pledged against the Bank advances and by other assets of the Bank consisting largely of government securities. Long-term advances to supply member institutions with cash for capital purposes were made by the Swedish mortgage banks but the provision for short-term advances to meet seasonal and emergency liquidity requirements was inserted by the originators of the Home Loan Bank System after studying the needs of this country's home-financing institutions.

Much of the confusion in the minds of the public and the legislators arises from the change in attitude of the Govern-

1909, and the Residential Mortgage Bank of Sweden (Svenska Bostadskreditkassan) founded in 1929.

ment toward the home-mortgage financing problem. As indicated above, the governmental thinking in 1932 which found expression in the Federal Home Loan Bank Act was based upon a belief in the strength and future of local community thrift institutions as the logical sources of mortgage credits in this country. The Government at that time believed in a maximum of local management and regional autonomy in the nation's home-mortgage structure. When the construction industry and real estate activity continued in the doldrums after other industries had resumed more normal activity in 1933 and 1934, largely as a result of influences outside the home-mortgage business, the Government created another system of mortgage credit assistance in the National Housing Act of 1934.

This system operates on a different principle from that underlying the operations of the Federal Home Loan Bank System and the functioning of local thrift and home-financing institutions. The FHA was brought in to deal temporarily with the housing problem, to revive the construction industry during the emergency period following 1933. Some advocates of the program, however, thought of it as eventually being established as a permanent part of our home-mortgage structure. As it now stands there is considerable danger that it may become just that, with all the attendant dangers resulting from direct dealing with the public in mortgage-financing assistance, in contrast with the indirect institutional theory of the Bank System. The FHA method implies direct governmental control over home-mortgage interest rates; terms of financing, such as down payments and length of loans; community development; types of material and construction to be used in private residential dwellings; and to

some extent control over the types of lending institutions developed, by virtue of its encouragement of the brokerage concept of operation in contrast to the operations of community institutions having a thrift and savings program along with their mortgage-lending activities. It implies also the bringing into a long-term capital market short-term credit from commercial banks and the central money markets of the country with the aid of government guarantees as to the soundness of the investment. The contrast is clearly one of a maximum of government regulation as against a maximum of local individual operations by savings and home-financing institutions assisted by the Federal Home Loan Bank System.

General Economic Factors

In leaving the theory and precedents of the Bank System for a discussion of the more practical and immediate problems facing the Federal Home Loan Bank structure, it is apropos to consider the various controls exercised over the home-financing system by the Federal Home Loan Bank Board and by the 12 regional Banks. The charge has been made that the Board has failed to exercise sufficient control over the operations of the 12 Banks and completely failed to perform its duty in regulating the real estate market. On the other hand, statements have been made that the Board is too dictatorial in its function of supervising the operation of the System and the associations responsible to it. Some clarity of position at this point may be helpful before proceeding with a discussion of the proper scope of the Board's authority.

On several matters of control, particularly those pertaining to the real estate and home-financing businesses, the Federal Home Loan Bank System is not

comparable with the Federal Reserve System in the scope of its powers. The Federal Home Loan Bank Board has no power over the liquidity position of its members such as has been exercised by the Federal Reserve Board since 1935. Nor is there any power to regulate the interest or dividend rates of its members in any way comparable to the setting of a maximum interest rate that may be paid on non-commercial deposits in commercial banks, or savings banks in some states. There is no regulation of the lending powers of the members such as those exercised over the security loans of member banks.

The Federal Reserve System, of course, which is charged with the responsibility of stabilizing our economic activity, has and does exercise these powers, but the Federal Home Loan Bank System was not given express responsibility for bringing stability into the real estate market. Some differences of opinion exist as to whether or not the Federal Home Loan Banks should use the powers at their command, such as adjusting their interest rates on advances and changing their credit requirements, in an effort to control (1) interest rates and lending policies and practices of member institutions and (2) price levels and credit extension in the residential real estate field in general. Also, if the Banks should attempt to exert control in either of these two ways, to what extent should this effort be made? In the opinion of the writer, these problems should be handled by educational methods; solutions should not be sought through coercive regulation and bureaucratic controls or application of unproved money-management ideas.

With regard to control over interest rates and lending policies of members, it must clearly be pointed out that Government is reaching more and more into

this field, as is evidenced by the FHA System, but at the same time it must be stressed that nothing in the Home Loan Bank statute suggests that the Federal Board was given the responsibility or the right to interfere with the power of directors of member institutions over rates, policies, and practices. Only two sections in the Act contain anything either directly or indirectly pertaining to powers over rates and policies of members. Section 4(a) states that a home-financing institution shall be eligible for membership if it

"(1) is duly organized under the laws of any State or of the United States; (2) is subject to inspection and regulation under the banking laws, or under similar laws, of the State or of the United States; and (3) makes such home mortgage loans as, in the judgment of the board, are long-term loans . . . No institution shall be eligible to become a member of, or a nonmember borrower of, a Federal Home Loan Bank, if, in the judgment of the Board, its financial condition is such that advances may not safely be made to such institution or the character of its management or its home-financing policy is inconsistent with sound and economical home financing, or with the purposes of this Act."

This section deals exclusively with eligibility of institutions for membership and is not a fiat for a bureau in Washington to establish month-to-month or year-to-year interference or control over rates and lending policies of members.

The other section in question (Section 5) likewise contains a membership requirement and is the only part of the Act having anything to do with interest rates charged by member institutions. This reads:

"No institution shall be admitted to or retained in membership or granted the privileges of nonmember borrowers, if the combined total of the amounts paid to it for interest, commission, bonus, discount, premium, and other similar charges, less a proper deduction for all dividends, refunds, and cash credits of all kinds, creates an ac-

tual net cost to the home owner in excess of the maximum legal rate of interest or, in case there is a lawful contract rate of interest applicable to such transactions, in excess of such rate (regardless of any exemption from usury laws), or, in case there is no legal rate of interest or lawful contract rate of interest applicable to such transactions, in excess of 8 per centum in the State where such property is located. This section applies only to home mortgage loans made after the enactment of this Act."

In this section Congress did not give general power of control over rates; it limited this power by specifying that there must be compliance with the legal or contract rate. It has always been public policy in this country for the states to set the maximum rate which loans may carry, or the legal rate which is paid in the absence of a contract rate. This section merely states that, when the state has not set a legal rate, their rates shall be not more than 8% for admission. In this lack of control over members' lending rates, the Federal Home Loan Bank System is not unlike the Federal Reserve System. There the control over the lending rates of the 6,330 member banks is limited to indirect pressure applied by use of the power over reserve requirements, open market operations, and manipulation of the rediscount rate; no direct control is exercised over retail interest rates in commercial banks.

Since the Federal Home Loan Banks also have the power to alter the rates at

which they lend to member associations, some differences of opinion have arisen concerning the use of these rates for the purpose of indirectly controlling the retail price of mortgage money and construction activities in residential real estate. Regardless of the advisability of such far-reaching attempts, it has not yet been proved in the banking field in this country, and particularly in the savings and loan field, that the rate charged by the reserve bank materially affects the lending rates or the lending activity of member institutions.

Some savings and loan leaders point out that the Act itself did not specifically give the Federal Home Loan Banks authority to use their rates to control interest rates in the home-financing business for the purpose of effecting expansion or contraction of home-financing and residential real estate activities in general. Those who hold this opinion would eliminate or at least minimize the control aspects, contending that on the whole the regional Banks should lend at a rate determined by the cost of the service performed. Although there is some evidence of the desire of the Federal Home Loan Bank Board to control the rates not only of the 12 Banks but also of their member institutions, the policy, by and large, has been to refrain from any management of mortgage-credit activity by controlling interest rates in the home-financing business.⁹ In general, this is the wisest course

⁹ Chairman John H. Fahey of the Federal Home Loan Bank Board, writing on "Competition and Mortgage Rates" in 15 *Journal of Land & Public Utility Economics* 150 at 151 and 152 (May, 1939) said:

"In the last analysis there is no way really to control the fixing of interest rates on home mortgages except as a result of the competitive activity of mortgage lenders. If there is a shortage of money for home mortgages and going rates of interest are high, mortgage-lending institutions will not have loans insured at 5 or 5½%. They will lend their money at market rates and take their own risks. If there is an abundance of money the rates will go down, and those who seek high rates cannot get the business. . . .

"The savings banks of the country are very large

mortgage lenders, so are the insurance companies, trustees, and mortgage companies, and there is no way to control the rates of these lenders except by fair and honest competition. The question has been raised as to whether the Federal Home Loan Bank Board should not require that money borrowed by institutions from the Federal Home Loan Bank System be loaned to individual borrowers only at rates limited by the Board. This would appear to be a very doubtful policy. It is hardly practicable to provide that the Federal Reserve System shall insist that commercial banks shall not lend to borrowers for home mortgages, or other purposes, except at rates which the Federal Reserve Board shall prescribe. It is doubtful if privately owned banking institutions would accept such a restriction."

to follow when a policy of interest-rate control is considered in its long-term implications, just as other price-fixing and price-controlling activities by the Government are of doubtful wisdom. Of course, capital in the home-mortgage field may sometimes be overexpanded, and possibly, in such circumstances, the Federal Home Loan Banks should increase their rates in an effort to influence the situation. It should be pointed out that the effectiveness of such a move in a period of prosperity is doubtful, even if it were authorized and tried; and certainly since we are not now in a period of overexpansion, such a move at this time would be entirely unwarranted.

Professor Westerfield states in his first article that the Federal Home Loan Banks have assumed little responsibility "to support the market, to control the credit supply, to stabilize the price of homes, building supplies and labor, and to promote economic recovery or to prevent recession" (p. 387). He is undoubtedly correct in making this statement but as pointed out above there is a serious question as to the ability of the Banks to control credit supply, prices of building and of residential real estate, and the like, even if they were given the authority to do so. It should likewise be noted that a stable local lending system would promote such results even though these might not be the immediate, specific aims of such a system.

Prior to enactment of the legislation some witnesses from the various fields and some members of Congress indicated that they thought the System would tend to stabilize building operations, encourage sound and uniform lending practices, enlarge the funds available for home building, aid and stimulate the work of home-financing institutions, and stabilize real estate and especially home-property values. Congressman Frank

Hancock of North Carolina, for example, stated his belief that the Federal Home Loan Bank Board would adjust lending activities in the home-financing field to cyclical conditions, thus helping to level off extremes in business cycles. The particular condition to which he wanted to relate the lending activities of the System was the relative supply of funds for home financing. He said:

"The control features in the bill, granting considerable power to the governing board, will permit . . . restricting advances during times when funds are abundant, with the view to making them more available when other credit sources begin to dry up in periods of decreasing business activity, and can thus be of major assistance in alleviating the harmful effects of the business cycles."¹⁰

But, in general, there was practically no discussion of control features or of interest-rate adjustment, and study of the record shows no intention anywhere of including such broad control mechanisms and principles in the Act. The whole implication of the Act was that such matters were to be dealt with by the states and that they were to be subject to such restrictions as state legislatures should establish. Serious questions of policy are involved in the concentration in the hands of the Federal Government of control over the rates, lending policies, and practices of local home-financing institutions. Had some of the men who helped plan and write the legislation thought that the Board as established would attempt to control from Washington the rate, percentages, terms and policies of lending or of payments to savers, they certainly would not have supported such legislation or they would have inserted provisions in the Act to insure that this could not happen without the consent of the governed.

It should be understood that savings and loan associations can exist and do

¹⁰ *Congressional Record*, June 19, 1932, p. 12996.

business under any universal policies established by Government which apply equally to commercial banks, savings banks, insurance companies, private lenders, mortgage brokers, mortgage banks, and all forms of credit organization, but those in the savings and loan field certainly do not believe that it is the responsibility of the Federal Government to control all these matters. It seems clear that the best way to deal with these problems is to maintain stable lending institutions in the local communities and to encourage a vigorous competitive situation. With reference to costs of housing, not only does government have the powers necessary for dealing with labor and material monopolies, price fixing, and building-code rigidities, but also it has the full and clear responsibility for doing so—a responsibility until recently to a large extent neglected. This is the real way to deal with housing costs, stabilization of values, and support of the real estate market. Through better enforcement of the anti-monopoly laws, government should establish and maintain a really competitive situation locally, and it is encouraging that steps are now being taken in this direction.

The Theory of Supervision

In his first article Professor Westfield discussed the problems of control and supervision as far as the Home Loan Banks and their member institutions are concerned; he made the statement that "the Federal Home Loan Bank Board has shown little interest in exercising its legal authority over the Federal Home Loan Banks and their members and has made a modicum of progress in that direction" (p. 388). On the other hand, some who have studied the System feel that the Federal Board has exercised its authority over the detailed operations of the 12 Banks to such an

extent that it has limited their initiative, vitality, adaptability, and responsibility as a decentralized 12-unit system.

With regard to member institutions, the proper legal authority of the Board, according to the Act, consists of admitting members, facilitating the lending of money to them, and removing from membership any institutions which are insolvent or which have violated the Act or regulations made by the Board within the authority of the Act. Of course, in the case of federal savings and loan associations which are Bank members, the Board has very broad powers of organization, incorporation, examination and regulation which do not apply to state-chartered member institutions.

There are two well known theories as to the extent of the power of the Federal Home Loan Bank Board in dealing with federal savings and loan associations. One is that the Board has very broad power to make and enforce general regulations applicable to all alike, but limited to questions dealt with in the statute and involved in the organization, incorporation, operation, and regulation of the associations as such, but not including the power to manage individual associations or to take action in connection with their employment or business policy within the law and general regulations. The other theory is that the Board has broad power to enact any rule or regulation affecting one or more federal savings and loan associations in any matter which the Board deems to be in the public interest, including the power to remove individuals directly or to veto employment and to direct or veto business engagements which are within the law and the general regulations. The former theory is consistent with the general practice of other supervisory authorities dealing with financial institutions and with the development

of the law and the practice on this subject. The latter theory is one developed in recent years, based upon an exaggerated enthusiasm for the public interest.

Where savings and loan associations desiring to become members have no public supervision, the Board has power to supervise; Section 4 (c) authorizes the Board to prescribe inspection and regulation for such associations. It is clear from Section 17, which states the powers of the Federal Board, that the general powers of supervision and regulation relate to the carrying out of the provisions of the Act as regards the regional or reserve Banks:

"The board shall supervise the Federal Home Loan Banks created by this Act, shall perform the other duties specifically prescribed by this Act, and shall have power to adopt, amend, and require the observance of such rules, regulations, and orders as shall be necessary from time to time for carrying out the purposes of the provisions of this Act."

In its whole spirit this language refers to the relations of the Board with the 12 Banks and not with member institutions. Regulations for bank members, beyond implementing the clear provisions of the Act, would be an assumption of legislative power and administrative authority not contemplated by Congress or approved by the sponsors of the legislation.

The intent of Congress and of those backing the Home Loan Bank proposal was to set up a decentralized, quasi-independent system in which the Banks were the cornerstone, with the Board in Washington acting as a coordinating and supervising agency, rather than as a regulatory, controlling, or operating authority. A decentralized basis was used to prevent the System from becoming

a tool of political patronage and expediency, as well as to provide for the wide variety of economic conditions in such a vast country as ours. The decision to decentralize the operations of the Federal Home Loan Bank System was an expression of the public's unwillingness to centralize financial control in the nation's capital. The battle for local and regional autonomy in government, and particularly in financial matters, has ever characterized American democracy. It was evidenced by the rejection of the original central banking proposal of the Aldrich commission in 1912 and the decision to create a decentralized land-credit structure.¹¹ The regional arrangement in the home-credit system is a recognition of public preference on such matters and of the fact that decentralized control will, in the long run, be the superior type of organization.

Another reason for using a district basis was to level off local credit differences throughout the country, and to avoid a completely centralized federal control. Actually there is no cause for being disturbed by the differences in procedure in the different Banks. Many of the matters which lack uniformity are of little moment and as Mr. Catlett aptly remarked:

"So long as those policies [fixed by the local board] are satisfactory to the members of that Bank it may well be, and indeed I think it is, true that self-control and self-determination are more important than uniformity."¹²

Mr. Catlett made an interesting comment on this matter of insufficient Board control of the regional Banks:

"This precise complaint now being discussed is somewhat surprising in view of the fact that all of the protests which have come to the Federal Home Loan Bank Board with reference to the question of local autonomy

stimulate business, stabilize prices, and prevent depressions.

¹² Address, *op. cit.*, n. 2 above.

¹¹ However, the Banking Act of 1935 was a major victory for exponents of centralized control and regulation of bank credit by government in an attempt to

as against centralized control, have been in the nature of protests against actions of the Federal Board on the ground that it was destroying local autonomy and making of the local directors mere rubber stamps."¹³

However, as Professor Westerfield has pointed out, there are possibilities for greater uniformity in the policies and practices of the Federal Home Loan Banks than now exist and much of this could come without any loss of regional prerogatives over operating details. Although it is recognized that conditions in the different districts may vary and that no rigid lines can be laid down once and for all, Professor Westerfield is to be commended for having focused attention upon the wide differences in the operations within the Federal Home Loan Bank System.

Supervisory Machinery

Associated with the question of Board domination of regional bank activity are the misgivings that have arisen in connection with use of the Bank System itself for promotion and general supervision of federal and state-chartered insured associations. Professor Westerfield made the statement in his first article that

"The Federal of Boston stipulates that the member cannot borrow from outside sources except with its previous consent, and it earmarks or reduces the member's line of credit in an amount equal to two or more times the amount borrowed! A member must be brave or foolhardy to bring down on itself such penalty, imposed by a management that at best merely tolerates outside borrowing!" (p. 409.)

Professor Westerfield could not help but be vexed at such a ruling with which his institution or other members of the Bank could hardly be in sympathy, nor could he be blamed for his dissatisfaction with a system that would permit

such unpopular policies to be made and enforced by officers elected by directors representing member associations. The reason for this difficult situation and the answer to some of the questions which perplexed Professor Westerfield are found in a basic organization problem of the Federal Home Loan Bank System—that of the mingling of supervision with banking. Combining the functions of banking and supervision in the regional bank officers results in an anomalous situation. It makes these officers dominant, by virtue of their supervisory powers for which they are responsible only to the Board in Washington, over the very directors who hire them and to whom they are responsible for performance of their banking functions. This in turn may result in the difficulty of having the shareholders and directors of a Bank out of accord with the policies of their own institution, unable to have a voice in the supervisory policies carried out in the name of the Bank, and possibly hesitant and unable to contest the actions and policies of their own Bank.

The mingling of supervision with banking consciously and unconsciously results in the conviction in the minds of government officials and employees that they are carrying out government policies and protecting millions of citizens from mismanagement by their supervisory functions and obscures the constructive banking side of the System, that of building and strengthening local thrift and home-financing institutions. In carrying out their supervisory functions, government officials and employees oftentimes forget that the savers and investors believe in local management or they would quietly remove their funds from these institutions. Success in the management of financial institutions can come only from constant and

¹³ *Ibid.*

effective pursuit of the customers' welfare and interests. Perhaps the Home Loan Bank System needs to define and divide its tasks and avoid, if possible, falling into power-seeking, policy-making habits on the part of regional as well as Washington officials. The confusion of negative supervision and constructive banking is a problem which might well occupy the minds of the managers of member institutions and banking students like Professor Westerfield.

Requirements such as those which are effective in keeping member associations from availing themselves of cheaper sources of capital are undoubtedly attributable to the desire to build larger and stronger Banks, but certainly the member institutions should not be forced to borrow from the Home Loan Banks as they now are because the bank officers are also their supervisors. This is only one example of the many difficult situations that may and do arise from these administrative arrangements added to the structure of the Federal Home Loan Bank System.

Several important principles are involved in the supervision and examination of local thrift and home-financing institutions. The examination work which includes visitation of the associations, accounting, auditing, statistical analysis of financial condition, and the preparation of reports should be separated from the important discretionary and executive work of supervision. The Federal Home Loan Bank Board has kept these two functions separate and

in so doing has made a real advance in the theory of supervision of financial institutions.

In general, supervision should be decentralized or localized in order that supervisory authorities can become closely acquainted with the problems and programs of local institutions and with conditions in the communities in which they operate. Personal contacts and a sympathetic and practical knowledge of the work and service performed by associations would tend to improve the supervisory understanding, to eliminate inconvenience and interference with solvent, successful institutions, and to reduce delay¹⁴ which is quite as important to management as to supervisory authorities. Furthermore, since supervision is a specialized task, the best work is done if well paid officials with experience in the savings and loan business or in the mortgage banking field devote themselves almost exclusively to it.

In formulating policies and in making supervisory decisions it is essential that conferences and discussions be used in order that the point of view of association management as well as that of the supervisors can be drawn upon. In the savings and loan field some progress has been made in using savings and loan boards, the boards of the regional Home Loan Banks, and advisory boards as clearing houses for the points of view of management, public officials, and perhaps others not directly associated with the business.¹⁵ Among the recent and important precedents is the banking board

¹⁴ For example, the delay of four weeks to four months in the receipt by the association of the supervisory letter pointing out the finding of the examination and criticisms and recommendations of the supervisor.

¹⁵ The two most important deliberative bodies are the present Bank Presidents' Conference and the Federal Savings and Loan Advisory Council. The Conference, created by resolution of the Federal Board on May 9, 1934, does not represent the management point of view

because the bank officers are responsible only to the Board in Washington for their supervisory activities which demand a great part of their time and attention. The Advisory Council, on the other hand, created in May, 1935 by an amendment to the Federal Home Loan Bank Act and composed largely of association managers, has much more the management point of view and its recommendations reflect this side of the question.

of nine members, created in 1938 by statute in New York State, to be in charge of supervision of banking organizations of that state; four members of this board must have had banking experience according to specific requirements laid down in law.¹⁶ In varying degrees, similar arrangements exist in some other states. It is believed that the establishment of legislative and deliberative machinery of this kind would provide a middle ground and help to prevent such supervisory errors as those which led to the closing of many commercial banks later found to be solvent. It should also help to prevent overexpansion of supervisory activities and intrusion into the field of policy making and transactions which must be reserved to the management of local institutions.

The ideal relation of a practical supervisory executive to this conference or advisory group is still in flux. For example, some feel strongly that the Home Loan Bank officers should be solely the leaders and representatives of their respective boards and their regional Banks, reflecting the opinion and judgment of their members and managements instead of being in their present anomalous and conflicting position. Some feel that there is danger that bank presidents will be lost—that is, in the functional sense; that under a centralized system they may become appointees and representatives of Washington instead of autonomous leaders of the affairs of local institutions. Still we do not want to see supervision divorced from the Home Loan Banks and operated exclusively from Washington. With the responsibility that Congress has placed on the Federal Home Loan Bank Board with its five members appointed by the President of the United States with the advice and consent of

the Senate, with regard to supervision of federal and state-chartered institutions, it is not probable that this actual and final responsibility will or should be delegated in fact even though at the moment it is in form.

Possibly a cautious experiment might be made to relieve bank officers of supervisory work. This could be done by making the chief supervisory official in each Bank district a separate Home Loan Bank agent, selected by, or with the assistance of, the regional boards but responsible to the Federal Board. The regional boards of directors, in turn, could act in an advisory capacity and be kept informed as to policies, communications, decisions, and actions relating to supervisory activities. Such an arrangement would permit the proper amount of member and director influence and contact with supervision. Thus, the Bank presidents could be relieved of all supervisory responsibilities so as to be free for banking work and to act as intermediaries where a member institution desires to appeal to the officers of the Bank or where some major questions arise which justify the interposition of authority superior to that possessed by the examining or supervising officials. Control over supervision by the Washington Board would be sufficiently maintained since under such an arrangement the district supervisor would be responsible to the Board and be governed by its instructions. Furthermore, the advice emanating from the regional board should reflect, in part at least, the opinions of the Board in Washington by virtue of its appointment of four of the 12 directors of the regional Banks and the designation of the chairman and vice chairman of each of these boards.

Since proper supervision is important to the continuing soundness of member institutions, it is in a sense a responsi-

¹⁶ Laws 1938, c. 684, §13.

bility of the Banks to see that proper supervision is carried out. This being the case, the directors of the Banks should have some part in formulating supervisory policies and some contact with the district supervisor. The result would be an improvement in the System's operations and policies by correcting the chief organizational difficulty of the System—namely, the fact that a bank president is carrying out the supervisory activities as a direct and confidential agent of the Federal Board in Washington and is also making recommendations, approvals, and disapprovals regarding chartering, insurance of accounts, reorganizations, association policies, personnel, and by-laws without action by the regional board of directors, and need not inform and is not responsible to his regional board of directors for this substantial portion of his activities.

Probably it is not in the best interest of the Banks to have their chief officers engaged in both the supervisory functions and the operations of the Banks. Bank officers, relieved of their supervisory duties, could devote themselves exclusively to the business of the Bank, to promoting the expansion of home-financing through member institutions, to increasing liquidity through the development of the deposit function, and to developing personal and group contact with member institutions. If the Banks had remained exclusively banks, with the energies of their staffs and boards of directors devoted in full to banking functions, probably today the resources of the Banks would be two or three times what they are now, with corresponding expansion of credit to community institutions. Supervision and promotion must be carried out, and these functions should be coordinated with the fundamental activities of the Home Loan Banks and the System in

general; however, more efficient performance in all these lines can be achieved if the basic principle of division of labor is followed more completely.

Finally, the problem of financing the supervision by the Federal Home Loan Bank System merits thorough discussion. The time and energies devoted to non-banking functions have been expensive in themselves and have taken time from the work of building and strengthening the Banks themselves. Then there has been a real battle for earnings. By bringing attention to the question of the Banks' earnings, Professor Westerfield has opened up a real problem for discussion. Considerable thought can be given to this by the Washington Board and by the officers and directors of the regional Banks. Probably cost-accounting methods could be applied to put supervision as well as examination on a pay-as-you-go basis. The associations examined and supervised should pay one fee covering all such expenses. It is certainly not fair or necessary to expect stockholding bank members, not under Home Loan Bank supervision, to pay for the supervision of other institutions.

Substantial progress is being made in supervision of all types of financial institutions and discussions like those of Professor Westerfield invite thoughtful exploration of the scope, responsibility, cost, objectives, and limitations of supervision. Many believe, however, that state and federal control and centralization have gone entirely too far in the financial field, including the savings and loan field.

Performance of the System

The statements of some critics of the Federal Home Loan Bank System that it has failed to live up to the expectations of those supporting the proposal in 1932 are not entirely unfounded. The

System was established to do a long-time job in strengthening the local thrift and home-financing institutions of the country and with the additional hope that it would keep community lending institutions functioning at that time by relieving some of the strain on them resulting from excessive delinquencies and withdrawal requests. Much of the confusion in the public mind in regard to the purposes of the Federal Home Loan Bank System arose out of the statements of some political zealots who went to the country saying that it would prevent foreclosure. These statements obscured the real purposes of the System and gave rise to many of the present-day impressions that it has failed to live up to expectations. As a matter of fact, the Bank System was never intended to make direct loans to home owners, even though the Senate did insist on tacking on an unworkable provision to this effect. It did succeed in keeping hundreds of the local lending institutions of the country on an active operating basis and thus relieved pressure on mortgagors, assisted millions of individuals, and kept considerable mortgage credit flowing.

The Home Loan Banks, legally created in July, 1932, undoubtedly would have done a better job had not banking and general financial conditions become so distressed by the time the operations of the Banks got under way in late 1932 and 1933. This distress and mounting foreclosures of straight-matured and short-term mortgages were the background for the more direct and extensive proposal in the form of the Home Owners' Loan Corporation which took

thousands of mortgages out of the hands of commercial banks, institutions, and individual lenders.¹⁷ Statements to the effect that the HOLC was brought in to do the job the Bank System was supposed to have done have obscured the practical and long-time service that the System was to do and is doing with the community institutions.

It has also been held that the System has failed to attract a large proportion of the mortgage-lending institutions of the country and that this is evidence of disappointing performance. It is true that but few of the country's mutual savings banks and life insurance companies that could qualify for membership in the System have taken advantage of this opportunity. This can be explained by the traditional attitude of these groups toward any type of borrowing or bills payable and their stout resistance to and apprehension of federal regulation and influence over their affairs. These groups have always looked upon borrowing as evidence of weakness and therefore attempt to conduct their institutions in such a way that they will have no need for borrowed money and the reserve credit facilities of a Federal Home Loan Bank System. At any rate, such institutions were small factors in the home-mortgage field, catering primarily to large-unit residential and business properties.

On the other hand, the support of the System by the savings and loan business has been excellent, particularly as compared with the Federal Reserve System. Sixty-five per cent of the total assets of all savings and loan associations and

¹⁷ The \$2,750,000,000 of HOLC disbursements to original mortgagees represented 14% of the home-mortgage debt of the country as of the end of 1932. The distribution of this volume of bonds among the various classes of mortgage lending institutions represented the following *proportions* of their respective

mortgage holdings as of December 31, 1932: commercial banks, 26%; savings and loan associations, 13%; individuals and miscellaneous lenders, 13%; mutual savings banks, 12%; and life insurance companies, 9%. (House Committee *Hearings* on H.R. 3232 (H.R. 5324), 1939, p. 172.)

by this type of financial institution are represented in the System. Member banks of the Federal Reserve System hold approximately 70% of the total commercial bank deposits of the country. This comparison is the more favorable in view of the fact that the Federal Home Loan Banks have yet to hold their eighth anniversary whereas the Federal Reserve Banks are 26 years old. With reference to number of member institutions we find that the Federal Home Loan Bank System comprises 43% of all savings and loan institutions compared with a 41% commercial bank representation in the Federal Reserve System. Incidentally, at the end of its seventh year the Federal Reserve System comprised in its membership only 32% of the banks of the country. According to official statistics the members of the Home Loan Bank System have made approximately 79% of the total mortgage loans made by savings and loan associations during the past two years, showing that the great bulk of active associations are affiliated with the 12 Banks. The fact that the 12 Home Loan Banks have made total advances of more than \$547,000,000 during their seven-year existence, of which \$387,000,000 has been repaid without loss, is evidence of the part which the Federal Home Loan Bank System is playing in the home finance field and the inherent soundness of the Bank structure. This is an excellent record which becomes doubly significant when it is realized that approximately 90% of the assets of 3,890 member associations is actually in working credits, that they have been active every year in the mortgage loan market, and at the present time are lending more than \$100,000,000 per

^{17a} In passing it might be noted that, in spite of the impression among public officials and the press regarding the volume of its operations, FHA is actually insuring only \$50,000,000 per month and of this amount ap-

month, in contrast to the inactivity of funds invested or deposited in other types of financial institutions.^{17a}

Although there may yet be a hope of bringing into the System a large number of savings banks and insurance companies, the failure to reach these groups will not mean that the System will be unable to survive, or that its members will not be able to perform a dominant public service in the home-finance field, as they certainly are doing at the present time. Surely the savings and loan business itself can support a permanent reserve credit system, without assistance from the savings bank interests—welcome as their participation might be to some. The expressions of doubt on this point by certain government officials should be a real challenge to the savings and loan leaders of this country.

Professor Westerfield mentioned that the Federal Home Loan Banks were doomed to inconspicuousness in meeting the demand for mortgage funds in this country, and in proof of his point cited figures comparing the total advances of the 12 Banks with the total volume of mortgage loans in the country and pointed out that the outstanding advances of the Bank System have never approached the maximum lending limits. That this was not necessarily evidence of weakness or attributable to restrictions upon lending as maintained by Professor Westerfield was ably demonstrated by Mr. Catlett¹⁸ when he stated:

"The fact is that the advances have not been greater because the institutions have either not been compelled, or have not desired, to increase their advances above certain points. At a very early period there grew up in the field the feeling that an association ought not to borrow even to the full amount of its borrowing capacity, because to do so would de-

proximately 13% consists of loans made by savings and loan associations.

¹⁸ Address, *op. cit.*, n. 2 above.

stroy one of the important advantages to it of the Bank System. It was felt that a portion of this credit with the Bank System should be held as a reserve to be used only in cases of emergency."

Certainly size is no indication of importance. The facts are that today the total advances of the 12 Home Loan Banks are approximately *five times* the total amount of direct member-bank borrowings from the 12 Federal Reserve Banks. The simple explanation of this fact is that both Systems, the Federal Reserve System more than the Home Loan Bank System, exist in part as instrumentalities for use in emergencies or stress periods and excessive use in normal times is not expected and would hamper proper functioning in periods of credit stringency. Particularly in periods of monetary plenty, such as exist in our country today, the low volume of advances by these Systems should not appear unusual, and I think upon reflection Professor Westerfield will agree. To use a homely example of this point, the infrequent use of a city's fire engine does not indicate that it is useless to the community. It should not be necessary to run the fire truck up and down the city streets daily or at random to convince the public of the necessity of maintaining a fire department. The Federal Home Loan Bank System has fortunately not been called upon to perform its emergency functions and no statistical presentation of its total advances today can be an indication of its ultimate importance to the thrift and home-financing institutions of the country and the communities which they serve.

In passing it should also be mentioned, as further indication of the Home Loan Bank System's ability to serve its member institutions, that it has been very successful in its five attempts to float consolidated debentures on the

open money markets. Although there has as yet been no concrete evidence that these obligations can be sold during periods of crisis, certainly past reception of the debentures gives every hope of success in these endeavors. There is considerable merit in Professor Westerfield's suggestion that the System cease financing itself on a short-term basis as it has been doing through the issuance of debentures having maturities of one to five years. Now that the System is maturing and the money markets have become acquainted with its securities, careful study should be given to the advisability of floating debentures of longer maturity the next time the Banks have need of additional capital.

In connection with the securing of short-term capital the Home Loan Banks have not developed one important source of funds to the extent that would have been possible and that was contemplated by the legislation. The original Act authorized acceptance of deposits from members but prohibited checking accounts. The theory was that it would be necessary for community thrift and home-financing institutions to avoid freezing in the future, by carrying from 5 to 10% in commercial balances, time deposits, or absolutely liquid securities. It was felt that the balances of member institutions, in so far as they were not needed in their checking accounts, might be invested in government securities but preferably placed on short term or time deposit at low interest rates in their own 12 Home Loan Banks. Thus, these funds would be retained in the thrift and home-financing field and would be available for shifting to different parts of the country through interbank deposits which were authorized and dealt with at length in another section of the Act. Later the deposit section of the Act was revised so that, if

desired, the 12 Banks could render a complete banking service to their member institutions. However, there has been no disposition to replace commercial banking services by Home Loan Bank activity, although organized hostility to savings and loan development on the part of the commercial banking interests might initiate such policies. After all, the 12 Home Loan Banks are bankers' banks for the savings and loan associations and can function as such, if necessary.

Two of the Home Loan Banks accept no time deposits at all from member institutions and none of the Banks obtain anywhere near the volume of short-term capital from this source that they might. Certainly a Home Loan Bank can assume some of the risks and responsibilities of banking for its members and, by maintaining a proper proportion of cash and security liquidity, safely accept a substantial volume of deposits from members. Since the System has obtained only short-term funds by the sale of debentures and has paid investment banking groups rather generously for this capital, why should it not get a part at least of its short-term money from its own members through time deposits and pay them $\frac{1}{2}$ or 1%, thus making it more possible for them to attain what is regarded as a modern liquidity position? The failure to encourage and develop a deposit function is one of the disappointments in the Federal Home Loan Bank System, as far as its general membership is concerned.

Member Borrowing

Professor Westerfield pointed out in his first article that the members cannot, according to the Act, borrow more from

the Home Loan Banks than an amount 12 times the capital stock subscriptions, and the members must hold stock in the Banks in amount equal to 1% of the unpaid principal of their home-mortgage loans. He stated that, because of these provisions in the Act and because of the difference between the dividends paid on such stock and the returns which the members might earn on mortgage loans, they would be losing earnings if they increased their stock subscriptions in order to gain additional borrowing capacity. However, this loss-of-earnings aspect is easily overemphasized and it must be taken for granted that members would use their additional borrowings in a profitable manner.

Since in Professor Westerfield's opinion the lending power of the Banks is considerably limited by the stock-subscription requirements mentioned above, he seriously doubts that the system can function as a reserve agency for emergency lending and also for lending during normal times. In expressing this belief he repeated the concern of some witnesses who discussed the proposed system in 1932. The late Senator James Couzens of Michigan, for example, doubted the necessity for a permanent system, since he feared it would not be used when there was a demand for investment outlets by individuals and by financial institutions.¹⁹ E. J. Adams of the Federal Trade Commission likewise doubted that the Home Loan Banks would be used by members in prosperous times, saying that he believed that the Banks could not lend at rates sufficiently low to attract borrowings by their members.²⁰ Conversely, Jay Morrison, President of the Savings Division of the American Bankers Association, held the opinion that the Banks were to be used for credit purposes primarily in normal times, and that, therefore, they

¹⁹ Senate Sub-Committee, *Hearings on S. 2959*, Pt. 4, 1932, p. 669.

²⁰ *Ibid.*, Pt. 2, 1932, p. 364.

could not function effectively in emergencies.²¹

On the other hand, Congressman Hancock told the House of Representatives:

"The home-loan bank system is not to be used to furnish a major or large part of the assets of the member institutions. It is to supplement those assets with the idea that they will still continue to receive their funds from their customary sources."²²

As stated before, the purpose of the Federal Home Loan Bank System was to build the long-term strength of local community institutions. It was designed to be a coordinating agency, a second line of defense. Its funds were never meant to supplant private savings in the individual lending institutions wherein lies the inherent strength of the Home Loan Bank System of mortgage-credit assistance. This view of the inherent purpose of the System was taken by President Hoover when he proposed to Congress the establishment of a system of Home Loan Discount Banks for several purposes, one of which was:

"For the long-view purpose of strengthening such institutions [local institutions loaning on long-term mortgages] in the promotion of home ownership, particularly through the financial strength thus made available to building and loan associations." (Italics supplied.)

That the operation of the System should not be such that it would discourage, or minimize the importance of local capital in the mortgage lending institutions probably explains many of the restrictions on member borrowing to which Professor Westerfield and other critics object. There is the further consideration that it is not fair to the shareholders in a savings and loan association to give the officers of the institution an unlimited right to create creditor obliga-

tions which have precedence over the shareholders' claims. As Mr. Catlett has pointed out, the Bank System is based on the belief that borrowing by associations from it on long term is eminently sound but that definite limitations on such borrowing are desirable. In spite of believing in the philosophy underlying the statutory restrictions on association borrowing, the writer is not by any means certain that the record proves it to be wise, necessary, or effective to have supervisory or statutory restrictions on borrowing. It is at least worth while to open the question of leaving such policies solely to local managements and directorates.

Considerable concern was expressed by Professor Westerfield over the attitude toward commercial bank borrowing by member associations and the limitations imposed upon such borrowings by the Banks and their officers. Focusing attention on this point is one of the big contributions of Professor Westerfield's articles, for there appears to be considerable merit in these criticisms. The Banks could well review their attitude on this matter of outside borrowing. At this point a discussion of why short-term commercial bank borrowing by member associations is of concern to the Federal Home Loan Banks and the Federal Board should be helpful. To revert to the background of the System, it was established to serve as a reserve institution from which the home-financing institutions could obtain funds both in emergencies and in normal times. At the time of enactment, savings and loan leaders pointed out that the financing of homes is necessarily a long-term operation and that in order to meet the conditions of the business, the home-financing institutions should rely mainly upon long-term funds in their borrowing operations, even though some short-

²¹ *Ibid.*, Pt. 2, 1932, p. 381.

²² *Congressional Record*, June 10, 1932, p. 12997.

term borrowing to meet seasonal requirements is certainly legitimate and sound. At that time the difficulties confronting associations which had borrowed too heavily on short term from commercial banks were quite evident to those interested in the proposed legislation, and the need for keeping short-term borrowings at a reasonable proportion was quite clear. Since one of the functions of the Federal Home Loan Banks is to make short-term and emergency loans, it is reasonable that their officers give attention to outside borrowings and commitments of their members. It does not, however, follow that member associations should be forced by the Banks' officers to use their facilities exclusively as Professor Westerfield points out they try to do. Member associations probably prefer to use the borrowing facilities of the regional Banks, but they should not be so obligated, particularly if and when it means a substantial increase in the interest cost. If the Home Loan Banks want to build up their lending volume, they should attempt to meet the competition of the banks in terms of interest rates instead of resorting to regulations of certainly doubtful propriety and legality and the use of supervisory authority and influence to obtain the members' borrowing business.

From the point of view of the members, there are two considerations with respect to short-term advances. Do the managers of member institutions have an obligation to use the System even though it may cost them more, or as businessmen and trustees for their shareholders should they borrow wherever they can, seeking the lowest rates obtainable in an effort to keep their immediate cost as low as possible? For the present, at least, the Home Loan Banks cannot meet the low rates offered by commercial banks in some cities; the

difference between the rates may be a cost which members will have to pay during normal times for maintaining a reserve system upon which they can draw in emergencies. However, is it entirely necessary that the costs of operations be as high as they are? An answer from the point of view of bank earnings lies in greater emphasis on the deposit and investment program and a reduction of expenses in Washington as well as of the outlays from bank earnings for non-banking functions performed by the regional Banks. This is certainly a thought that merits consideration.

At various places in his two articles Professor Westerfield cited other lending policies of the Banks and of the Board which he disapproved—namely, (1) the wide differences in definition and practice regarding lines of credit; (2) the portions of the lines of credit which the Federal Home Loan Banks designate must be held for emergency borrowings; (3) amortization requirements on short-term advances to members which in some cases are rather strict, in spite of the fact that such advances may become capital loans; (4) unduly stringent requirements on the part of some Banks regarding notice or even penalties for prepayment of loans; and (5) relatively high interest rates charged on advances, both long-term and short-term. Professor Westerfield is to be commended for having focused attention on these features of Federal Home Loan Bank lending policies and his criticisms should be carefully considered and studied with a view toward possible correction where the criticisms are justified. His summarizing statement at the close of the second article should particularly be kept in mind:

"One general comment as regards the lending activities of the Federal Home Loan Banks, the Rules and Regulations of the

Federal Home Loan Bank Board in relation to them, and the statutes under which they subsist, is that there is altogether too great a propensity to bind, check, and throttle. It is a habit of thought brought into the System by its sponsors and administrators.

"One prominent curse of the building and loan business has been the multiplicity of petty annoyances which management and statute impose on shareholders, depositors and borrowers—the meticulous insistence on fines and penalties for infractions of rules and regulations that produce revenue rather than make distinguished management. It is too bad that this philosophy has gained such a foothold in the conduct of the central bodies of the System."

Costs of Operation

When the System was established, it was hoped that the Government and the member institutions would receive a reasonable return upon their stock investments, with the idea in mind that business principles and policies would be followed to make this possible. Some of those who supported the proposal also hoped that in time, with the cooperation of the Federal Home Loan Bank Board, enough additional stock could be sold to member institutions so that the government stock could be retired, realizing, however, that this would be possible only if the stock proved to be a profitable investment.

On the other hand, as the System has been operated and under the various theories of its leaders, the profitableness of the Banks or the earnings on Bank stock are given little consideration. The tendency to increase the scope and cost of the Board's and the regional Banks' non-banking activities has certainly not been in the direction of giving member institutions a greater return on their investment. Neither has the profitableness of the stock been given any con-

sideration under the theory that the Federal Board should force down the rates charged on bank advances to influence the retail interest rates of member associations. The rates to member associations should be reduced if at all possible, but certainly not for the purpose of increased control over individual association management. From the point of view of the officials of the System, it is, of course, easier to reduce or largely eliminate dividends to stockholders than it is to restrict the activities and expenses either of the regional Banks or of the Federal Board. This is one of the weaknesses of all governmental operations, but certainly the member associations are entitled to raise the question: Cannot the Board and the 12 Banks, with only 3,900 customers in the entire country, operate at an overhead cost much less than \$291.03²² per year per member institution? It would seem that they could reduce their expenses and pay their own way if they devoted themselves constructively and largely to banking functions with such collateral activities as promotion of insurance, supervision of federals, reorganizations, and home-service schemes planned on a self-sustaining, pay-as-you-benefit basis.

Perhaps the member institutions would have more earnings for reserves and for dividends to their saving members if they borrowed some six-months' funds from commercial banks at rates ranging from 1 to 2%. Such borrowings would tend to enhance understanding and good will on the part of commercial bankers, an asset which can be worth a great deal to the savings and loan business. There is no reason why the 12

²² For the year ending June 30, 1939. This includes the net assessment levied by the Federal Home Loan Bank Board on the regional Banks and the total operating expenses of the 12 Banks. It does not include the

cost of obtaining money, such as interest on debentures and time deposits, and other expenses incident to the debentures. For the last half of the fiscal year these expenses averaged \$321 per member association.

Home Loan Banks should seek to establish a monopoly of short-term credit when by using cost accounting, by reducing expenses both in Washington and in the 12 district Banks, and by making bond purchases they can carry on in an orderly way. In fact, some competition and efforts to operate at a cost as low as possible and to pay dividends would be good for the whole System. It is not my intention to advocate the reduction of executives' salaries but rather to urge that "red tape" be eliminated, that so-called service functions be reduced, and that the non-banking functions of the System be put on a cost-of-service basis. At no time has the existence of the Federal Reserve System precluded borrowings by the small member banks from the large banks, nor has it kept the member banks from continuing their traditional interbanking deposits, advances, and accommodations. With regard to the Federal Home Loan Bank System, this question should be discussed, decided, and carried out from a broad business point of view with the sole aim of promoting the interests of the communities and of the citizens which the 3,900 member institutions serve.

Conclusion

The Federal Home Loan Bank System has made positive progress and is performing an important function in the home-financing field. It has had and still has obstacles to overcome, and clearly some of the policies, practices and activities of the Federal Board as well as of the Banks should be reconsidered in the light of experience as well as of future potentialities of the System. These

steps should be taken, however, with a view to the fundamental purpose for which the System was established—namely, to provide a reservoir of credit for normal as well as emergency needs of the member institutions.

Throughout all discussion of the System, however, it would seem desirable to bear constantly in mind that probably no reserve system can be a cure-all. The Federal Reserve System did not, for instance, prevent the collapse of commodity prices in 1920 and early 1921. Nor did it prevent the banking crisis of 1933, when banking difficulties developed under complete loss of confidence and banks crashed regardless of the Federal Reserve System. In the light of these experiences, it appears that reserve systems are at best only a second line of defense. The primary answer to banking problems is to make the individual local institutions so strong in their management policies and financial position that they will not break down and lose public confidence.

If this is taken as the objective of the Federal Home Loan Bank System, all reconsideration of its policies and practices should be undertaken with a view to strengthening the local units and making adequate credit available to them. Emphasis cannot be placed too strongly on the need always to bear in mind the local nature of the member institutions and the local nature of the commodity in which they deal. Recognition of these facts must be dominant in plans for improving the administrative machinery of the System. Upon the cost, efficiency, and availability of the System rest its usefulness and service to member institutions and, in the long run, to home owners and home buyers.

I. Legal Possibilities and Limitations of Milk Distribution as a Public Utility*

By W. P. MORTENSON†

PRIOR to the early 1930's, processing and distributing fluid milk in cities and villages had been operated as a competitive business virtually entirely free of public economic control. After the great depression set in with real force in 1932 and 1933, the pendulum swung almost the full distance in the opposite direction—toward public control of prices to be paid for milk at the farm and at resale. Some 15 states and the Federal Government passed legislation setting up controls designed in general to stabilize the fluid milk industry. Although the intention was to maintain competition, the production, processing, distribution, and sale of milk were declared to be "affected with a public interest." Thus, in a broad sense, milk was declared to fall within the sphere of a public utility. This made milk unique as a farm product.

Large profits and high salaries said to exist in the milk business during the 1920's created an increasing public concern which was fanned to an uncomfortable pitch of emotion in many places during the early thirties. By the middle or late thirties, however, public interest was being directed somewhat away from profits and salaries and more to the "labor problem" and to the wastes which presumably prevailed in the existing system of distributing fluid milk—especially its delivery to the city family.

Even legislative bodies began to deliberate with some seriousness concerning the possibilities of reducing the cost of milk distribution. For example, in

1935 a bill was presented in the Wisconsin legislature to permit cities to process and distribute fluid milk to the exclusion of private enterprise. The bill passed the assembly and lost in the senate by only a narrow margin. Again, two years later, a similar but more detailed bill was introduced in the legislature, recommended for passage by the committee on agriculture, but was lost in *sine die* adjournment along with a host of other bills.

To what extent the general public interest will translate itself into action to make the processing and distribution of fluid milk a public utility cannot be foretold but a definite trend in that direction is apparent.

In order to make clear at the outset what is meant by the term "public utility," it may be well to set forth the distinctions between various general types of economic activities which operate today in our American economy and to show the type and extent of regulation imposed upon each.

The Place of Public Utilities in Modern Economic Activities

Modern economic activity varies between two extreme categories. At one extreme are those activities, commonly referred to as *public services*, which are owned and operated by governments (federal, state, or municipal) as a government monopoly for the common benefit. At the other extreme are the privately operated business units which

son, Professor of Agricultural Economics; Edwin E. Witte and Martin G. Glaeser, Professors of General Economics, all of the University of Wisconsin, for many helpful suggestions in the preparation of this article.

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are left almost entirely to the volition and direction of the individual or the private business unit. Relatively little, if any, public regulation, affecting prices or their purely economic activities, is imposed directly upon them.

Between these two categories is another group of activities which are operated by private enterprise but subject to relatively complete public regulation. Enterprises in this group include what are ordinarily referred to as "public utilities" or quasi-public functions. The classification is such that the lines of division between the three categories are wavering and blurred. One category shades into the other, leaving a doubt as to exactly where each falls—a doubt which exists not only in the minds of the general public but also in the minds of legislators and perhaps, to a lesser extent, of economists and of the judiciary.

The meaning of the term "public utility" varies according to the point of view from which it is defined. There are at least three common definitions:

1. The "average citizen" may define it as the local gas, electric, city bus, or telephone company—a *purely functional definition*. Customarily, this so-called average person—comprising the great bulk of voters and, in the final analysis, the lawmaker—is inclined to think in terms of tangible things: buildings, equipment, type of service and the mode of operation to which he has been accustomed.

2. The lawyer will point out that a public utility is any business which has been declared by legislation to be such, and in which the public has a closer interest than is true of the ordinary private business. It is, he will say, an enterprise "clothed with a public interest." This definition is based upon state and fed-

eral constitutional sanction, emphasizing a purely *legalistic interpretation* of the rights and powers of the state. The lawyer thinks in terms of constitutional rights, legal development as manifested by court decisions, and, perhaps to a much lesser extent, of public purposes—economic or social. For the most part the lawyer, and often the judge, concerns himself little about theories of value or engineering efficiencies.

3. To the economist any enterprise may fall into the category of a public utility if it has certain economic characteristics which in the aggregate distinguish it from private competitive enterprise. The fundamental characteristic is that of being a natural monopoly furnishing an essential service to the public and necessitating that it be given certain exclusive rights and privileges.¹ For these rights and privileges the utility, in turn, obligates itself to perform services of a certain quality at rates agreed upon between the general public and the public utility enterprise. Thus, from this point of view it is the *character of the business* and the mode of operation which determine whether an enterprise is or is not a public utility.²

Recent United States Supreme Court decisions have emphasized that all businesses are "clothed with a public interest." This increases the difficulty of setting forth a rigid definition of a public utility. For our purpose we shall assume a public utility to be a business in which only those may engage who have been granted a franchise from government (Federal, state, or a "department of the state"). Whenever the milk business is permitted to operate only after obtaining an exclusive franchise from the city or state, this would mean conferring the right of monopoly or quasi-monopoly

¹ F. W. Laurent, "Public Utility Concepts." (Unpublished paper furnished the writer by Mr. Laurent.)

² Martin G. Glaeser, *Outlines of Public Utility Economics* (New York: Macmillan Co., 1927), c. 1.

upon a single milk distributor, or a very small number of them, in a market or market area. Milk distributors under this system would be peculiarly subject to intensive regulation of the prices paid to farmers as well as those obtained at resale, and of the type and quality of service rendered to the public, especially the consuming public. Such an arrangement may be referred to as a *unified system* of milk distribution because it would operate as *one unit* throughout the market (or, in case of two or three distributors in a market, as an integrated system). Obviously, this is in sharp contrast to the existing system of milk distribution in which a large number of competing distributors operate largely independently of each other.

It is the history of public utilities that, as society has grown more and more complex and accordingly becomes more dependent upon certain services, public regulation over these services has been extended for the common benefit. An examination of United States Supreme Court decisions seems to indicate (with few exceptions) that, whereas the judicial concept of the general character of a public utility has remained relatively unchanged, the kinds of businesses which may be subjected to public utility regulation have gradually become enlarged. Indeed, public regulation is part and parcel of a complex economy, and the public utility is the product of regulation as it applies in the more complete and direct form.

Definitions as Established by Statute

State legislatures commonly designate in specific language the enterprises which are to be classed as public utilities. These embrace among others the common carriers—railroads, city street car and bus systems, and water, gas, electricity, telephone, and telegraph cor-

porations. Thus, the statutory definition becomes a purely functional one, similar to that of the layman, specifying the exact businesses involved and the definite activities to be performed.

A state or the Congress may impose regulations upon the milk business comparable to those placed on a public utility, including (1) regulatory machinery to carry out the details of the legislative policy, (2) fact finding, (3) powers to limit entrance into the milk business, (4) determination of the conditions of distribution and sale of milk, including prices paid to farmers and at resale, and (5) enforcement of the act, penalties, etc. (Carried further it might also involve the right to grant an exclusive municipal ownership and operation of the milk business.) However, although this is the privilege of the legislative branch of the government, it is the prerogative and duty of the courts to review the legislation when properly challenged and to determine whether the particular industry is subject to public utility regulation and whether such regulation may be applied to particular functions within that industry. This prerogative is imposed upon (or assumed by) the courts by reason of the limitations provided in the Fifth and the Fourteenth Amendments.

A review of court decisions involving the regulation of fluid milk, especially those decisions handed down by the United States Supreme Court, will throw light on the trend which regulation has been taking in this field of activity during the past three decades or so. It may also provide some basis for determining the extent to which regulation may legally be extended. More specifically, such an analysis should furnish a basis upon which to determine whether or not the regulation may be carried to a point similar to that now imposed on more commonly recognized public utilities.

Control of Health and Sanitation

Issues involving public health and welfare have ordinarily been subject to more rigid public control than purely economic issues.³ Legal authority relative to these phases has been quite clearly defined.⁴ Indeed, the importance of obtaining supplies of pure and wholesome fluid milk for human consumption has been acknowledged almost universally, and the power of a municipality to pass ordinances requiring and enforcing regulation to this end has been recognized for more than a half century,⁵ and has been common practice for more than a quarter of a century.⁶ The power of a city to require pasteurization of milk with the view of protecting public health was upheld by the Supreme Court of Wisconsin as early as 1920. This court held that such ordinance "... is an appropriate and valid regulation for the protection of the people's health."

In 1933 an important decision by the United States Supreme Court upheld an order of the State Commissioner of Agriculture in New York prohibiting cattle from being shipped into the state unless accompanied by an official certificate showing them to be free from Bang's disease, presumably the cause of undulant fever in humans.⁸ Again the fundamental consideration was that of safeguarding the public health. Although other cases could be cited, these are rather typical and perhaps sufficient to indicate the power of the state to enforce legislation promoting sanitation and

public health and welfare. Significantly, prior to about 1935, regulation in the distribution and handling of milk centered almost entirely around questions of health and sanitation. Up to that time no important legislation had involved control of prices.

State Milk-Price Control

Price legislation during the 30's and the subsequent attempt to enforce its mandates brought a train of entirely new legal questions in its wake. The first important United States Supreme Court case involving the legality of state price fixing became known as the *Nebbia* case (1934). The New York State Milk Control Board had been vested by the legislature with the duty and power to fix prices of milk. Under the Board's order milk was to be sold by retail stores at nine cents per quart. *Nebbia*, a grocery store operator in Rochester, New York, violated the order by selling two quarts of milk and a five-cent loaf of bread for eighteen cents. This in reality meant a cutting of milk prices.

Associate Justice Roberts, who wrote the majority (five to four) opinion, held:⁹

"Under our form of government the use of property and the making of contracts are normally matters of private and not of public concern. The general rule is that both shall be free of governmental interference. But neither property rights* nor contract rights* are absolute; for government cannot exist if the citizen may at will use his property to the detriment of his fellows, or exercise his freedom of contract to work them

³ Those issues involving public morals are considered equally important, but they are seldom if ever involved in the phases of business which will be discussed in this article.

⁴ For a more extended discussion of court decisions affecting milk control, see James A. Tobey, *Legal Aspects of Milk Control* (Chicago: International Assn. of Milk Dealers, 1936); and James A. Tobey, *Federal and State Control of Milk Prices* (Chicago: International Assn. of Milk Dealers, 1937).

⁵ In 1874 Massachusetts passed legislation prohibit-

ing the sale of "diseased, corrupted, and unwholesome products" (Mass. Laws 1874, c. 50).

⁶ *State ex rel. Nowotny v. Milwaukee*, 140 Wis. 38 (1909).

⁷ *Pfeffer v. Milwaukee*, 171 Wis. 514 (1920).

⁸ *Mintz v. Baldwin*, 289 U. S. 346 (1933).

⁹ Citations within quotations from the United States Reports have not been included here, nor in subsequent footnotes. Their locations, however, are indicated by asterisks.

harm. Equally fundamental with the private right is that of the public to regulate it in the common interest. . . . Price control, like any form of regulation, is unconstitutional only if arbitrary, discriminatory, or demonstrably irrelevant to the policy the legislature is free to adopt, and hence, an unnecessary and unwarranted interference with individual liberty.* The Fifth Amendment, in the field of federal activity,* and the Fourteenth, as respects state action,* do not prohibit governmental regulation for the public welfare. They merely condition the exertion of the admitted power, by securing that the end shall be accomplished by methods consistent with due process. And the guaranty of due process, as has often been held, demands only that the law shall not be unreasonable, arbitrary or capricious, and that the means selected shall have a real and substantial relation to the object sought to be attained. It results that a regulation valid for one sort of business, or in given circumstances, may be invalid for another sort, or for the same business under other circumstances, because the reasonableness of each regulation depends upon the relevant facts."¹⁰

The Court recognized that:

"We may as well say at once that the dairy industry is not, in the accepted sense of the phrase, a public utility. We think the appellant is also right in asserting that there is in this case no suggestion of any monopoly or monopolistic practice. It goes without saying that those engaged in the business are in no way dependent upon public grants or franchises for the privilege of conducting their activities. But if, as must be conceded, the industry is subject to regulation in the public interest, what constitutional principle bars the state from correcting existing maladjustments by legislation touching prices? We think there is no such principle. The due process clause makes no mention of sales or of prices any more than it speaks of business or contracts or buildings or other incidents of property. . . ."¹¹

The language of the Court points out

¹⁰ *Nebbia v. New York*, 291 U. S. 525 (1934).

¹¹ *Ibid.* at 531.

¹² Thus, the *Nebbia* case, although consistent with the *Munn* case (1876) and with other cases of that period, was not in line with the view held by the Supreme

that regulation touching prices does not turn on the question of whether the business is classed as private enterprise or as a public utility.¹² The Court made clear that a high degree of government regulation touching prices may be carried over into fields which have in the past been looked upon as purely private. This point was again emphasized in the United States Supreme Court case of the *West Coast Hotel* in 1936.¹³

Mr. Morris Duane of the Pennsylvania bar believes that

"the [*Nebbia*] decision is important not because it enunciates new principles of constitutional law, but because it applies existing principles in a different way and marks distinctly a change from recent conceptions of due process. . . . The decision marks the change from an era of *laissez faire* to an era of governmental regulation."

The case

"decided that for a business admittedly not a public utility the state legislature can enact laws authorizing the fixing of prices and other regulation of that industry, and that the courts will not set aside such laws or orders issued thereunder as denying due process unless they are 'arbitrary, discriminatory or demonstrably irrelevant to the policy the Legislature is free to adopt, and hence an unnecessary and unwarranted interference with individual liberty.'"¹⁴

The four justices dissenting in the *Nebbia* case insisted that the milk business is "essentially private in its nature" and that the fixing of prices in an ordinary business is beyond legislative power.

"Rights shielded yesterday should remain infeasible today and tomorrow. Certain fundamentals have been set beyond experimentation; the Constitution has released

Court in the 1920's, notably in the *Wolff Packing Co.* case in 1922, as we shall see later in the discussion.

¹³ *West Coast Hotel Co. v. Parrish*, 300 U. S. 379, 398 (1936).

¹⁴ Morris Duane, "*Nebbia v. People: A Milestone*," 82 *University of Pennsylvania Law Review* 619 (April, 1934).

them from control of the state. Again and again this Court has so declared."¹⁵

A declaration that constitutional right once shielded may never be rendered void will serve as a shock to many social scientists. Adoption of such a public policy would impose a rigidity upon a social order to the extent of making it impossible to meet changing social and economic needs.

In his dissent, Mr. Justice McReynolds referred to the state control order upon which the case rested as "not merely unwise" but as "arbitrary and unduly oppressive." He questioned that the order would "accomplish the proposed end—increase of prices at the farm." The order was spoken of as taking away the liberty of twelve million consumers to buy a necessity of life in an open market. "It imposes direct and arbitrary burdens upon those already seriously impoverished with the alleged immediate design of affording special benefits to others." It would forbid one from selling the necessities of life at a price he is anxious to take and which buyers are willing to pay. Supplies of milk are plentiful, yet "no child can purchase from a willing storekeeper below the figure appointed by three men at headquarters."¹⁶

The dissenting opinion rested fundamentally upon a philosophy of abundance in production and consumption and argued against governmentally supported prices at a level above that which would otherwise exist.

Three years after the *Nebbia* case was decided the United States Supreme Court handed down another five to four decision in the *Highland Farms* case, affirming the power of a state to fix resale prices for milk purchased within its

borders.¹⁷ Despite the five to four verdict in each of these milk cases, and the vigorous dissenting opinion of the minority which commonly has a strong influence in later court decisions, the reemphasis in the *West Coast Hotel* case suggests that there should be no reason to expect a reversal from the *Nebbia* and *Highland Farms* decisions—at least in the immediate future.

It is to be noted that in the above cases the action centered on the power of the state to fix *resale prices*, that is, prices to consumers—family trade, hotels, restaurants, and stores. Closely related to these cases was one in which the particular point of law involved the power of the Milk Control Board to *fix prices to be paid farmers* for milk to be resold for fluid use. By orders of the New York Milk Control Board the minimum price paid producers was fixed at five cents per quart for Grade B milk, the quality most common in the market. The *Hegeman Farms*, dealers in this class of milk, challenged the Board's power and purchased milk from farmers at prices below those fixed by law.¹⁸ After a notice and hearing, this dealer's license was revoked by the Board to be reinstated only after the *Hegeman Farms Company* had paid producers the difference between prices actually paid and those fixed by the Board. Back pay to producers amounting to some \$23,000 was demanded by the Board. The case involved not only cancelling the presumed amount owed to producers but also the exemption in the future from the requirement to pay the fixed price. The language of the Court was unmistakable:

"True the appellant is losing money under the orders now in force. For anything there

¹⁵ *Nebbia v. New York* (Minority Opinion), 291 U. S. 502, 541, 546 (1934).

¹⁶ *Ibid.* at 557, 558.

¹⁷ *Highland Farms Dairy, Inc. et al. v. J. A. Agnew*,

300 U. S. 608 (March, 1937). This case was appealed from the district court of Virginia.

¹⁸ *Hegeman Farms Corp. v. Chas. H. Baldwin and others*, 293 U. S. 163 (1934).

shown in the bill it was losing money before. For anything there shown other dealers at the same prices may now be earning profits; at all events they are content, or they would be led by self interest to raise the present level. We are unable to infer from these fragmentary data that there has been anything perverse or arbitrary in the action of the Board. To make the selling level higher might be unfair to the consumers; to make the purchasing level lower might bring ruin to producers. . . . The Fourteenth Amendment does not protect a business against the hazards of competition. . . . True, of course, it is that the weaker members of the group (the marginal operators or even others above the margin) may find themselves unable to keep pace with the stronger, but it is their comparative inefficiency, not tyrannical compulsion, that makes them laggards in the race."¹⁹

Thus this case seems to have established the right of the state to fix prices paid producers for milk.

However, these court decisions clarified only a part of the question of price fixing—that involving production within the borders of the state in question. Many fluid milk markets are so located that a portion of their milk comes from other states. This raises the legal question of the power of a state to control prices for milk in interstate commerce. On this point the United States Supreme Court in a unanimous decision ruled that a state may not fix prices of milk coming from beyond its borders. The case at bar was *Seelig v. Baldwin*.²⁰ Seelig, a distributor selling milk in the city of New York, bought milk and cream in Vermont at prices lower than the minimum established by the New York Milk Control Board. The New York Commissioner of Farms and Markets refused to grant Seelig a license to transact business unless he entered into and conformed to an agreement not to sell within the state of New York milk which had been purchased beyond the borders

of the state at prices below those fixed by the commission. Seelig declined to enter into such an agreement or conform to such a regulation. Court proceedings followed which were carried to the United States Supreme Court. The late Mr. Justice Cardozo delivered the opinion of the Court in language of telling finality:

"What is ultimate is the principle that one state in its dealings with another may not place itself in a position of economic isolation. Formulas and catchwords are subordinate to this over-mastering requirement. Neither the power to tax nor the police power may be used by the state of destination with the aim and effect of establishing an economic barrier against competition with the products of another state or the labor of its residents. Restrictions so contrived are an unreasonable clog upon the mobility of commerce. They set up what is equivalent to a rampart of customs duties designed to neutralize advantages belonging to the place of origin."²¹

The decision of the United States Supreme Court in *Milk Control Board v. Eisenberg Co.*, involving the question of interstate commerce seemingly contradicts the *Seelig v. Baldwin* case. In this instance the Court ruled that a state was within its legal right in prescribing minimum prices to be paid by milk dealers to producers even though the milk was shipped to and sold in another state. The fundamental distinction between this case and the *Seelig v. Baldwin* case was the importance of the interstate relative to the intrastate commerce.

Although Eisenberg, located in and purchasing his entire milk supply in Pennsylvania, sold all of it in New York, "only a small fraction of the milk produced by farmers in Pennsylvania is shipped out of the commonwealth." Approximately 10% of the milk was apparently sold beyond the borders of the state. Because of the relatively small proportion of the total milk production

¹⁹ *Ibid.* at 170, 171.

²⁰ *G. A. Seelig, Inc. v. Baldwin*, 294 U. S. 511 (1935).

²¹ *Ibid.* at 527.

entering into interstate commerce, such commerce was held to be incidental to that carried on within the state:

"Every state police statute necessarily will affect interstate commerce in some degree, but such a statute does not run counter to the grant of Congressional power merely because it incidentally or indirectly involves or burdens interstate commerce. . . .

"The purpose of the statute under review obviously is to reach a domestic situation in the interest of the welfare of the producers and consumers of milk in Pennsylvania. Its provisions with respect to license, bond, and regulation of prices to be paid to producers are appropriate means to the ends in view. . . . The Commonwealth does not essay to regulate or to restrain the shipment of the respondent's milk into New York or to regulate its sale or the price at which respondent may sell it in New York. If dealers conducting receiving stations in various localities in Pennsylvania were free to ignore the requirements of the statute on the ground that all or a part of the milk they purchase is destined to another state the uniform operation of the statute locally would be crippled and might be impracticable."²²

In the Court decisions discussed above the question did not arise as to whether a state legislature had the power to make a distinction between type of dealers and to fix one minimum price to be charged by one type of dealer and another price by a different type. Two cases involving this feature of price legislation were decided by the same high tribunal on February 10, 1936.²³ The New York Milk Control Act of 1933 and its amendment in 1934 provided that dealers selling well advertised brands of milk should charge one cent more per quart than those selling similar but an unadvertised brand of milk. The Milk Control Board ruled that four milk dealers, including the Borden Company, should be classed as those selling advertised brands and therefore should be required to charge a cent more

than the "independents." Prior to this act, a one-cent differential between the two classes of dealers had apparently existed to such an extent that it was looked upon as more or less common practice. The purported reason for establishing this differential was: (1) "the preservation of competitive opportunities among the dealers," and (2) prevention of monopoly on the part of a few large distributors. The majority opinion (five to four) of the Supreme Court stated:

"We hold that the fixing of the differential in favor of the sellers of milk not having a well-advertised trade name, in the situation exhibited by the findings, does not deny the appellant equal protection."²⁴ . . . "There was a plain reason for the classification. It was not merely that appellant had established good will; it was that there had resulted a balance between the advantage and the resulting disadvantage of the unadvertised dealers,—a balance maintained by a price differential. To attempt the maintenance of that balance was to strive for equality of treatment, equality of burden, not to create inequality."²⁴

On the day the above verdict was rendered, another related case was also decided—*Mayflower v. Ten Eyck*. As stated above, the New York milk control law as amended effective April 1, 1934 provided that dealers selling unadvertised brands who were in the market prior to a certain date (April 10, 1933) were permitted to sell milk at one cent per quart below the price fixed for dealers selling advertised brands. Paradoxically, the same law provided that dealers entering the market after that date would be denied the one-cent differential privilege. The Court held the latter discrimination to be arbitrary, unreasonable, and violating the equal protection clause of the Fourteenth Amendment.

The Court pointed out that:

"One coming fresh into the field would not U. S. 251 (1936); and *Mayflower Farms, Inc. v. Ten Eyck*, 297 U. S. 266 (1936).

²² *Milk Board v. Eisenberg Co.*, Preliminary Print, 306 U. S.—, No. 2, Official Reports of the Supreme Court, pp. 346, 351-3 (1939).

²³ *Borden's Farm Products Co., Inc. v. Ten Eyck*, 297

²⁴ *Ibid.*, at 262.

possess such a brand and clearly could not meet the competition of those having an established trade name and good will, unless he were allowed the same differential as others in his class. By denying him this advantage the law effectually barred him from the business."²⁵

Clearly, the problem before the New York legislature in providing for a price differential between established distributors and independents was that of passing an act and formulating a price structure which would bring about equality between two groups—those who sold well advertised brands and independents whose product was not advertised. The Court took the position that:

"In the light of the facts found the legislature might reasonably have thought trade conditions existed justifying the fixing of a differential. Judicial inquiry does not concern itself with the accuracy of the legislative findings, but only with the question whether it so lacks any reasonable basis as to be arbitrary."²⁶

The facts before the Court in this case were such that a one-cent differential was found not to be arbitrary or discriminatory. According to the Court that difference, between the amount charged per quart by those distributors selling advertised brands and those selling unadvertised milk, brought about an economic balance between the two types of dealers.

Suppose, however, that another act should be passed by the same or another state and that the legislature or the administrative board had fixed a two-cent differential (or any other amount) between the two types of dealers, would that have been adjudged by the Court as arbitrary? It is recognized, of course, that an important reason for the Court's decision that the one-cent differential was not arbitrary was that such a differential had existed between the classes of dealers before the time of the Control Act, and apparently had become a more or less established part of

the price structure of the market.

The larger the price differential between the two groups of dealers the greater would be the opportunity of those who sell unadvertised brands to build up their business at the expense of purveyors of well advertised brands. Moreover, since new distributors are permitted to enter the market with the privilege of a like differential, then the dealers handling advertised brands would suffer loss of volume of sale at the hands of both. This loss of business would increase their unit cost of distribution because of (1) increased overhead or fixed cost in proportion to volume—and value—of sales and (2) greater distance of travel per unit of product disposed of on resale routes and with consequent increased unit cost of delivery.

The effect of the two decisions was thus to encourage an increase of an already extremely competitive condition with its resultant waste of duplication, rather than to discourage it. True, emphasis was placed upon the fact that the then existing regulation of prices was intended by the states to be of a temporary nature only; hence the Court believed the aim should be to return the milk business to a competitive condition similar to that which existed prior to the price control measures set up in 1933-34. Nevertheless, it would seem that the two decisions tend to bring added confusion into an already bad situation. Such differential price privileges not only encourage new distributors to enter the market, thus tending to aggravate an already inefficient system of milk distribution, but will also encourage companies who regularly sell advertised brands to form subsidiaries (independents) which may take advantage of this price differential as a means of obtaining new business.

Among the greatest hazards of any business is loss of volume of sale in an industry where capital equipment and

²⁵ *Mayflower v. Ten Eyck*, n. 23 above at 273.

²⁶ *Borden's Co. v. Ten Eyck*, n. 23 above at 263.

cost of operation are relatively fixed, as they are in milk distribution. A policy whereby some distributors are compelled by law to charge prices above those of their competitors, thus virtually stopping the former from obtaining new business or even holding the established business, strikes one as a sanction of a type of legislation which will result in, or actually force, inefficiencies in the market structure, discourage business enterprise from seeking to create good will for its product, and in building up a favorable reputation with its customers. Such a court decision may have in it a grain of justification supporting temporary legislation but, in the long run, effects are likely to be more harmful than helpful. A market structure such as was sanctioned by this court action may decrease the tendency toward monopoly but it will also, with just as much certainty, decrease the possibilities of efficiency of distribution.

Federal Price Fixing in Interstate Commerce

The cases so far mentioned involved the power of the state to regulate prices. More recently (June, 1939) two companion cases involving the power of the Federal Government to fix milk prices were decided by the United States Supreme Court.

Under the authority and following the provisions of the Federal Agricultural Marketing Agreement Act of 1937 the Secretary of Agriculture entered into milk marketing agreements with milk producers and others engaged in handling milk, or issued milk marketing orders in various milk markets of the United States. Controversy arose over the validity of the orders in the New York and Boston milk marketing areas and appeals were made through the courts. The cases reached the United

States Supreme Court and were decided June 5, 1939.²⁷

Issues other than the narrower question of the power of the Federal Government to fix minimum prices were also involved—namely, unconstitutional discrimination because of (1) exemption of producer cooperatives from the payment of uniform price required of proprietary handlers; (2) limitation of minimum prices to that milk "sold in the marketing area or which passes through a plant in the marketing area"; (3) provision of price differentials between territories located favorably and unfavorably to the market area; (4) the validity of the referendum; and (5) the violation of the order.

These, however, may be said to be secondary to the more fundamental question of the power of the Federal Government to fix minimum producer prices for milk entering into interstate commerce. On this question the Court ruled that "where commodities are bought for use beyond state lines, the sale is part of interstate commerce."²⁸

"The authority of the Federal government over interstate commerce does not differ in extent or character from that retained by the states over interstate commerce. . . . Recently, upon a reexamination of the grounds of state power over prices, that power was phrased by this Court to mean that 'upon proper occasion and by appropriate measures the state may regulate a business in any of its aspects, including the prices to be charged for the products or commodities it sells.'" (Phrase from the *Nebbia* case.)²⁹

The concluding installment of this article will appear in the February issue of the *Journal*. It will include a discussion of the regulation of legalized monopoly; the types of utility operation in the fluid milk business; and a look ahead into the possible trends of milk regulation in the future.

²⁷ *U. S. v. Royal Coop., Inc. et al.*, Sup. Ct. Rep., Vol. 59, No. 15, p. 993 (June 15, 1939); *H. P. Hood and Sons, Inc. et al. v. U. S. et al.*, *Ibid.* at 1019.

²⁸ *U. S. Royal Coop., Inc. et al.*, n. 27 above at 993, 1010.

²⁹ *Ibid.* at 1011.

I. Financial and Depreciation History of the Utah Power and Light Company

By LIONEL W. THATCHER*

ONE of the important tasks of commission regulation is to control the rates charged by a utility for its service so as to permit the utility to earn a fair return, if it can. The rate-base is only one of two factors needed in determining that fair return; the other is the rate of return. Before either the rate of return or the rate-base can be determined it is essential to give serious attention to the problem of depreciation. The rates of return, as revealed by the financial and depreciation history of Utah's largest utility, have been examined in this paper to determine the reasonableness of rates charged for service under the impact of whatever degree of regulation Utah has had. It is hoped that some conclusions may be drawn concerning the extent to which regulation has accomplished the objectives for which it was instituted, and concerning the degree of success or failure in this particular situation.

The Utah Power and Light Company holds a strategic position and undoubtedly has considerable effect on the agricultural, commercial, and industrial activities of the state. It provides about 95% of all electric service rendered within the state. During the past few years the number of municipally owned and operated electric plants in the state has increased rapidly and largely as a result, according to various city officials, of high rates caused by the financial and depreciation policies of the Utah Power and Light Company.

The following sections deal primarily with the rates of return of the Utah

Power and Light Company. The first section contains a discussion of financial statements reflecting the results of activities of Utah Power and Light Company after substituting for the reported accounts data which conform more nearly to the original investment basis. This is followed by a comparison of rates of return on total stock and common stock equity as reflected by the property records of the Company and as reported to the Commission, with rates of return after deducting excess costs of properties and adjusting for deficiencies in depreciation. Comparison of these two sets of ratios will show the apparent and real rate of return on utility investment.

Because of lack of pertinent data in the reports to the Commission by Utah Power and Light Company, the admitted inflation of its property and plant accounts, and the inadequate provision for depreciation, it has been necessary to make several adjustments in order that a more comprehensive analysis could be made of the actual original investment in the property and the cost of operations. Many of the adjustments are estimates, particularly of depreciation, and may vary from actual reasonable amounts were they known, for opinions may differ, for example, with respect to the estimated percentages of depreciation which should be used in the calculations. However, in an attempt to be conservative in computing the corrected accounts, the adjustments favored rather than prejudiced the utility.

History

The Utah Power and Light Company,

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incorporated under the laws of Maine in 1912, renders public utility service in Utah, Idaho, and Wyoming. The Company owns all issued securities, except directors' qualifying shares, of the Western Colorado Power Company, which owns and operates electric power and light properties in southwestern Colorado. Utah Power and Light Company also owns all capital stock, except directors' shares, of the Utah Light and Traction Company, which in turn owns electric, power, and railway properties in Salt Lake City and vicinity as well as the electric properties in Ogden and vicinity formerly owned by the Utah Light and Railway Company. The electric light and power properties are leased to the Utah Power and Light Company for 99 years from January 1, 1915. These properties are operated by the Utah Power and Light Company in connection with its own properties, but Utah Light and Traction Company operates its transmission system.

The Utah Power and Light Company and its subsidiaries serve 548 communities with a total population estimated at 506,000. These communities include Salt Lake, Ogden, Provo, Logan, Bingham, Park City, Lehi, and American Fork. The physical properties operated include electric generating plants, having a combined installed capacity of 235,490 kws., and 6,262 miles of electric lines of all voltages.

At its organization in 1912, the Company acquired a considerable number of hydro-electric plants and distribution systems which had previously been owned by various interests and had been acquired by Electric Bond and Share Company interests shortly before or-

ganization of the Utah Power and Light Company.

Subsequent to its organization, the Company acquired a number of other properties by purchase and has made substantial additions and improvements to its property. A measure of the growth is shown by the property and plant account:

1912 . . .	\$22,100,000	1927 . . .	\$74,728,983
1917 . . .	55,986,410	1932 . . .	82,576,113
1922 . . .	62,628,328	1936 . . .	82,417,403

Although these amounts represent the book cost of utility plant and include inflation arising at the organization of the Company, they do show in general terms the rate of growth.

The Utah Power and Light Company was organized and, throughout its entire corporate history, has been controlled by interests closely affiliated with the Electric Bond and Share Company. At the present time, it is a direct subsidiary of the Electric Power and Light Corporation, a holding company, under control of the Electric Bond and Share Company. Consequently, the Utah Power and Light Company reflects the policies in organization, acquisition, financing, construction, and operation of the Electric Bond and Share Company, which has supervised its transactions since 1912.

Excess of Recorded Costs of Property

According to investigations made by the Federal Trade Commission in 1933 and by the Utah Public Service Commission in 1934, the Utah Power and Light Company has an excess book cost of properties over original cost¹ of more than \$25,000,000. The total amount of inflation established by the Federal Trade Commission was \$34,330,246. In

¹ Original cost is used in this section as the price paid by Utah Securities Corporation for purchased properties, not the amounts originally entered in the books of Utah Power & Light Co. Utah Securities Corporation

was organized as a holding company by Electric Bond and Share Co. for the purpose of consolidating and controlling Utah Power & Light Co. and Western Colorado Power Co.

its report to Congress, the Federal Trade Commission made the following statement regarding the financing of Utah Power and Light Company:

"In December, 1912, properties costing Utah Securities Corporation \$6,480,708.32 cash, i.e., \$6,460,000, at receivership sale on November 18, 1912, plus subsequent interest adjustments of \$20,708.32, were written on the books of Utah Power & Light Co. on December 6, 1912 at \$22,100,000, or at an excess amount over cash cost to Utah Securities Corporation of \$15,619,291.68.

"Subsequent acquisitions of properties from or through Utah Securities Corporation, including both properties acquired by purchase and properties constructed by affiliated interests, were charged to the fixed capital account of Utah Power & Light Co. at amounts totaling \$9,610,828.49 more than their cost to Utah Securities Corporation. Thus, the total inflation in the fixed capital account of Utah Power & Light Co., over cash cost of the properties to the Securities Corporation was \$25,230,120.17.

"Not all assets acquired by Utah Power & Light Co. at prices in excess of their cash cost to affiliated interests were of such nature as to be chargeable to fixed capital account. Consequently not all of the inflation in its accounts was included in the \$25,230,120.17 of inflation in fixed capital. The total amount of inflation established is \$34,330,246.

"As of December 31, 1930, this total inflation of \$34,330,246 was equal to all of the book value of common stock outstanding amounting to \$30,000,000 (all of which was owned by Electric Power and Light Corporation) and to \$4,330,246, or 16.8 per cent of the total book value of preferred stock outstanding. In previous years, when the total of preferred stock outstanding was less, the percentage thereof represented by inflation was correspondingly greater."²

The average original cost of the property and plant as determined by the Utah Public Service Commission accountants has been used here rather than

the figures of the Federal Trade Commission. Inasmuch as both investigations gave practically the same original cost figures, it made little difference which set of calculations was used.³

Table I shows a comparison between the book cost of the Company's prop-

TABLE I. PROPERTY AND PLANT ACCOUNTS OF UTAH POWER AND LIGHT COMPANY*

Year	Per Books	Original Cost	Difference
1912	\$22,100,000	\$ 7,352,316	\$14,747,684
1913	36,323,140	9,228,273	27,094,867
1914	44,887,669	15,387,315	29,500,354
1915	47,213,506	20,826,533	27,386,973
1916	50,263,807	23,415,097	26,848,710
1917	55,986,410	27,640,487	28,345,923
1918	57,397,181	31,138,831	26,258,350
1919	58,203,357	32,247,305	25,956,052
1920	59,381,797	33,239,613	26,142,184
1921	60,167,857	34,221,863	25,945,994
1922	62,628,328	35,845,128	26,783,200
1923	64,976,071	38,249,235	26,726,836
1924	68,584,005	41,227,074	27,356,931
1925	70,454,012	43,966,044	26,487,968
1926	71,547,316	45,447,700	26,099,616
1927	74,728,983	47,585,186	27,143,797
1928	78,277,485	50,950,270	27,327,215
1929	79,397,745	53,284,651	26,113,094
1930	81,733,957	55,012,886	26,721,071
1931	82,216,603	56,422,316	25,794,287
1932	82,576,113	56,843,394	25,732,719
1933	81,931,787	56,700,986	25,230,801
1934	81,634,892	56,230,375	25,404,517
1935	81,690,643	56,137,678	25,552,965
1936	82,417,403	56,864,439	25,552,964

* Accountants' Report, 1936, "Public Service Commission v. Utah Power and Light Company."

erty and the original cost as determined by accountants of the Utah Commission. From the table it will be noted that, after the property and plant accounts were adjusted to approximate the original cost, a difference of more than \$25,000,000 existed for every year except 1912.

Original Cost of Property

Since we are dealing with the rate of

Federal Trade Commission and hence more favorable to the Power Company; (2) the Utah Commission had access to the previous Federal Trade Commission Report and was thus in a position to make further investigation and its report is presumably more accurate.

² 70th Cong., 1st Sess., Sen. Doc. No. 92, Pt. 45, p. 1628.

³ Two reasons prompted adoption of the Utah Commission's estimate rather than that of the Federal Trade Commission: (1) the original cost figures of the Utah Commission were slightly higher than those of the

return to the Company on a basis which conforms as closely as possible to the investment, it has been necessary not only to utilize the original cost of property and plant but also the original cost minus the adjusted depreciation reserve. Inclusion of excess property in a rate-base affects any return ratio that might be computed. In the instant case, to include \$25,000,000 of excess property in the rate-base would reduce an excessive rate of return to a nominal return. Likewise, a deficiency in the depreciation reserve affects any return ratio that may be computed on the depreciated investment.

Rates for utility service should cover reasonable operation and maintenance expenses, taxes, depreciation of the original investment, and a fair return on the depreciated investment. It seems reasonable that, if a utility recovered all legitimate operating costs including depreciation and a reasonable return on the original cost of property and plant, it has received adequate compensation for services rendered.

In order that such data could be presented concerning Utah Power and Light Company, it has been necessary to (1) eliminate the inflation from the property accounts, (2) recompute the depreciation reserve to represent more nearly the accrued depreciation of the property, and (3) adjust operating income for the increased depreciation expense.

The estimated original cost of property and plant shown in Table I includes all items of utility plant carried in the Company's accounts except write-ups above evidences of cost. However, working capital has not been included since it has not been practicable to make a study of working-capital requirements for each of the years under review. An approximate working-capital requirement has been estimated for the years

1932 to 1935 inclusive, based on cash working capital equal to $\frac{1}{8}$ of annual operating expenses exclusive of taxes and depreciation plus the book amount of materials and supplies. This method indicated an average total working-capital requirement of about 1.7% of the undepreciated original cost of utility property.

Reconstructed Depreciation Reserve

The Utah Power and Light Company has consistently failed to make proper provision for depreciation. From the beginning of operations in 1912 until 1917, nothing was set aside for retirements or accruing depreciation. Finally, in 1917 a meager sum of \$100,000 was credited to the retirement reserve. The annual allowance was increased each year until 1923 when it reached a maximum of \$700,000. Table II shows the significant ratios with regard to depreciation.

The data in this table substantiate statements to the effect that retirement accounting is a "slip shod" procedure and that provisions for retirement are dictated more by the profitability of the business in a given year and the demands of the stockholders than by a systematic program of estimating consumption of property.

The annual charges made by this Company have been fixed at \$700,000 from 1923 to 1936, except for the years 1931 and 1932 when the Commission permitted the Company to reduce its allowance to \$500,000 and \$300,000 respectively. For only three years has this depreciation allowance equaled 1% of book cost of the property and in 1932 it reached a low point of .37%. This low charge to depreciation compares unfavorably with that urged upon and granted by the Commission in 1921. In the Utah Power case of 1921, exhibits

TABLE II. RATIOS OF DEPRECIATION TO BOOK COST OF PROPERTY: UTAH POWER AND LIGHT CO.*

Year	Ratio of Depreciation Reserve to Property and Plant at End of Year	Ratio of Depreciation Allowance to Average Property and Plant	Ratio of Retirement to Average Property	Ratio of Salvage to Retirement
1922	3.19	.98	.28	125.60
1923	3.79	1.10	.35	20.30
1924	2.99	1.05	1.64	6.29
1925	3.65	1.00	.24	44.29
1926	4.39	.99	.18	21.26
1927	4.90	.96	.24	20.02
1928	5.08	.91	.55	17.38
1929	5.69	.89	.23	42.83
1930	5.90	.87	.43	24.83
1931	6.06	.60	.40	28.25
1932	6.26	.37	.14	81.30
1933	6.24	.86	.91	6.56
1934	6.60	.86	.51	15.71
1935	7.23	.86	.22	†
1936	7.74	.85	.22	†

* Data from annual reports to Utah Public Service Commission.
† Data not available.

were presented by the Company showing a composite annual percentage charge on the Bear River plant of 3.6% and the Commission ordered the Company to "set up a depreciation reserve fund" on all its depreciable property on the same basis as the Bear River System.⁴

Furthermore, retirements have been small in terms of property and plant, and especially so for a system which has been operating under regulation for two decades. Although the reserve allowance has been small, it has exceeded retirements except in 1924 and 1933. It would appear that the Company is pricing retirements at less than the recorded book cost, or is charging retirements to maintenance expense accounts, or is retaining

in its plant accounts property actually retired. If the Company is not accounting for retirements properly, the result will be an overstatement of the cost of property and perhaps excessive security issues, and this in turn will react on the Company's credit or will be reflected in higher rates. If retirements are reduced through high maintenance expense, this means that new property is being financed through the expense account. Another observation is that the ratio of salvage to retirement seems very high in some years. In 1922 the salvage was greater than the retirements and again in 1932 it was 81% of retirements.

For purposes of comparison, a second table of depreciation ratios calculated on the adjusted fixed capital accounts was prepared (Table III). From this table it will be noted that the ratios of depreciation allowance to average property and plant and the ratios of reserve to property and plant at the end of the year are considerably larger than those in Table II. Even with the increase, an average annual depreciation allowance of \$700,000 is below an adequate coverage of accruing depreciation.⁵ Expressed as a percentage of the estimated original cost of property and plant, it averaged about 1.4% compared with 0.9% on book cost. The accumulated retirement reserve averaged about 8% of the estimated original cost of property and about 6% of book cost. This appears to be but a small reserve, when it is considered that most of the plants are 15 to 25 years old, and much of the transmission system is more than 15 years old.

By curtailing the annual deduction for accrued depreciation below a full allowance, the earnings available for bond interest and dividends have been

include a large proportion of hydro-electric property which ordinarily has longer life than steam-production or distribution property.

⁴ *Re Utah Power & Light Co.*, 4. U.P.U.C.R. 96, Mar. 8, 1921.

⁵ In making this statement due consideration is given to the fact that the generating plants of the company

TABLE III. RATIOS OF DEPRECIATION TO ADJUSTED FIXED CAPITAL ACCOUNTS: UTAH POWER AND LIGHT CO.*

Year	Ratio of Depreciation Reserve to Property and Plant at End of Year	Ratio of Depreciation Allowance to Average Property and Plant	Ratio of Retirement to Average Property	Ratio of Salvage to Retirement
1922	5.58	1.67	.47	125.60
1923	6.44	1.38	.58	20.30
1924	5.08	1.70	2.66	6.29
1925	5.95	1.59	.38	44.29
1926	5.70	1.54	.28	21.26
1927	7.79	1.47	.36	20.02
1928	8.56	1.37	.83	17.38
1929	8.43	1.31	.34	42.83
1930	8.77	1.27	.64	24.83
1931	8.84	.89	.58	28.25
1932	9.09	.53	.21	81.30
1933	9.02	1.23	1.34	6.56
1934	9.59	1.24	.74	15.71
1935	10.52	1.25	3.26	†
1936	11.31	1.23	3.15	†

* Data from Accountants' Report on the Utah Power and Light Co., compiled under the direction of the Utah Public Service Commission.
† Data not available.

made to appear correspondingly larger. Failure to make the necessary provision for depreciation has resulted in overstating net income and surplus as shown by the Company's books and published reports. Such an overstatement is misleading, particularly to small investors who rely on Company records or published reports for information concerning its operations.

Because the depreciation reserve as shown by the books fails to give a true measure of accrued depreciation, a reconstructed depreciation reserve was calculated (Table IV). In reconstructing the depreciation reserve, an annual allowance of 2% of original cost of the property was used. Although the 2% is far short of the amount urged by the Company's chief engineer in 1920, it was sufficient to accumulate, by December 31, 1936, a reserve of about 26%

after deductions for retirements. Since much of the property is old and will have to be replaced before many more years of operation, an allowance of 2% is at least within the zone of reasonableness.

Rate of Return at 7% of Original Cost

In calculating the total revenue requirements of the Utah Power and Light Company as shown in Table V, for 1913 to 1936 inclusive, a rate of return of 7% on the net original cost of the properties has been used. Since all book operating expenses plus a 2% depreciation expense have been included, an "over-all" rate of return of 7% appears to be rea-

TABLE IV. RECONSTRUCTED DEPRECIATION RESERVE BASED ON ORIGINAL COST* (000's Omitted)

Year	2% Provision for Depreciation	Net Charges to Reserve	Net Increase	Balance at End of Year
1912†	\$ 12	\$ —	\$ 12	\$ 912‡
1913	185	53	131	1,043
1914	308	161	147	1,190
1915	417	112	304	1,494
1916	468	83	376	1,870
1917	553	23	530	2,400
1918	623	45	578	2,978
1919	645	15	630	3,608
1920	665	14	651	4,259
1921	684	70	615	4,874
1922	717	180	537	5,410
1923	765	240	525	5,935
1924	825	1,110	286§	5,560
1925	879	180	699	6,349
1926	909	131	778	7,127
1927	952	181	770	7,897
1928	1,019	430	589	8,487
1929	1,066	186	880	9,366
1930	1,100	366	735	10,101
1931	1,128	340	789	10,890
1932	1,137	121	1,016	11,906
1933	1,134	755	379	12,285
1934	1,125	421	704	12,989
1935	1,123	183	940	13,929
1936	1,137	179	958	14,887

* Original Cost as reported by Accountants' Report, 1936, *op. cit.*

† Year 1912 represents operation from December 6 to December 31.

‡ Includes \$900,000 reconstruction reserve carried over in re-organization.

§ Denotes red figure.

TABLE V. ESTIMATED RETURNS IN EXCESS OF 7% RETURN ON ORIGINAL COST OF PROPERTY AND PLANT,* UTAH POWER AND LIGHT COMPANY, 1912-1936

Year (A)	Estimated Average Original Cost of Property (B)	Reconstructed Depreciation Reserve (C)	Estimated Net Average Original Cost (D=B-C)	Return at 7% of Net Original Cost (E=7%×D)	Depreciation Expense at 2% (F=2%×B)	Operating Expenses per Company's Books† (G)	Total Revenue Requirements (E+F+G) (H)	Actual Total Operating Re- venue per Com- pany's Books (I)	Excess Revenues (J)
1912†	\$ 7,359,316	\$ 912,000‡	\$ 6,440,316	\$ 37,000	\$ 12,000	\$ 23,812	\$ 72,812	\$ 75,804	\$ 2,992
1913	9,228,273	1,043,184	8,185,089	572,956	184,505	553,613	1,311,134	1,377,078	65,944
1914	15,387,315	1,190,198	14,197,117	993,798	307,746	793,706	2,095,250	1,622,545	472,705
1915	20,826,533	1,494,458	19,332,105	1,353,247	416,530	1,679,623	3,449,400	3,116,123	333,277
1916	23,415,097	1,870,060	21,545,037	1,508,152	468,301	1,860,856	3,837,309	3,830,443	6,866
1917	27,640,487	2,399,744	25,240,743	1,766,852	552,809	2,241,169	4,460,830	4,622,410	61,580
1918	31,138,831	2,977,676	28,161,155	1,971,280	622,776	2,310,623	4,904,679	4,983,682	79,003
1919	32,247,305	3,607,894	28,639,411	2,004,758	644,946	2,537,338	5,487,042	5,078,319	408,723
1920	33,239,613	4,258,758	28,980,855	2,028,659	664,792	3,228,710	5,922,161	6,048,324	126,163
1921	34,221,863	4,873,500	29,348,363	2,054,385	684,437	3,183,868	5,922,690	6,267,540	344,850
1922	35,845,128	5,410,300	30,434,828	2,130,437	716,902	3,320,371	6,167,710	6,650,383	482,673
1923	38,249,235	5,935,197	32,314,038	2,261,962	764,934	3,899,228	6,926,194	7,916,437	990,243
1924	41,227,074	5,649,648	35,577,426	2,490,419	824,541	4,428,773	7,743,733	8,762,975	1,019,242
1925	43,966,044	6,348,641	37,617,403	2,633,218	879,320	4,521,032	8,033,570	9,265,723	1,232,153
1926	45,447,700	7,126,933	38,320,767	2,682,453	908,954	4,708,239	8,299,646	9,854,808	1,555,162
1927	47,585,186	7,807,348	39,687,838	2,778,148	951,703	4,781,601	8,511,452	9,970,798	1,459,346
1928	50,950,270	8,466,561	42,483,709	2,972,459	1,019,003	5,015,749	9,007,213	10,451,226	1,444,013
1929	53,284,651	9,366,369	43,918,282	3,074,279	1,005,693	5,570,140	9,710,112	11,244,860	1,434,748
1930	55,012,886	10,100,919	44,911,967	3,143,837	1,100,257	5,452,857	9,696,951	10,632,752	935,802
1931	56,422,316	10,889,676	45,532,640	3,187,284	1,128,446	5,582,829	9,898,559	10,154,642	256,083
1932	56,843,394	11,995,593	44,847,801	3,145,646	1,136,867	5,305,218	9,587,731	9,148,063	439,668
1933	56,700,986	12,285,056	44,415,930	3,109,115	1,134,019	5,171,870	9,414,964	8,339,082	1,075,882
1934	56,330,375	12,988,618	43,341,757	3,026,922	1,124,607	5,324,285	9,475,814	8,644,061	1,431,753
1935	56,137,678	13,928,636	42,209,042	2,954,632	1,122,753	5,537,525	9,514,910	8,921,752	693,158
1936	56,864,439	14,886,831	41,977,608	2,938,332	1,137,288	6,152,059	10,227,679	10,242,006	14,327
			\$56,820,250		\$19,574,241	\$84,080,683	\$169,852,545	\$177,122,737	\$7,270,192

* Accountants' Report, 1936, 4th ed.

† Year 1912 represents operation from December 6 to December 31.

‡ Includes taxes, uncollectible bills and rentals.

§ Includes \$900,000 Reconstruction Reserve carried over in reorganization.

¶ Indicates red figure.

|| Before allowance for return on working capital. With an allowance for working capital equal to 1.7% of undepreciated plant, the excess revenues would be \$1,172,703 less, or a total of \$6,097,489.

sonable. Moreover, a return of 7% on the total net original cost of property gives consideration to the fact that the Utah Power and Light Company provided most of its capital through bonds and preferred stock and that, after deducting excess costs and the deficiency in depreciation reserve, the common stockholders have no positive stock equity.

Rents Included in Operating Expenses

Included in operating expenses are rather large rents paid by the Company to its subsidiary (Utah Light and Traction Company) for power facilities owned by the latter company and operated as part of the Power Company's system. In addition to owning the power facilities leased to Utah Power and Light Company, Utah Light and Traction Company owns and operates electric railway facilities in and about Salt Lake City, which have been operated at a loss for several years. The Utah Power and Light Company owns all common stock of Utah Light and Traction Company and unconditionally guaranteed, as to interest and principal, \$1,401,000 of Utah Light and Traction Company's 8% collateral gold bonds, paid off January 1, 1934. The lease rentals paid by Utah Power and Light Company for facilities owned by Utah Light and Traction Company from 1915 through 1936 were as follows:

1915 ... \$539,279	1926 ... \$ 532,102
1916 ... 365,212	1927 ... 592,925
1917 ... 373,750	1928 ... 615,368
1918 ... 338,801	1929 ... 632,580
1919 ... 375,100	1930 ... 730,267
1920 ... 375,100	1931 ... 849,749
1921 ... 375,100	1932 ... 980,064
1922 ... 375,100	1933 ... 1,002,409
1923 ... 490,547	1934 ... 546,877
1924 ... 534,043	1935 ... 501,294
1925 ... 549,524	1936 ... 522,010

It will be noted that from 1922 to

1933 the lease rentals increased with some fluctuation. This increase, and particularly its fluctuations, appear to be attributable, in part at least, to inclusion in the lease rentals of payments of guaranteed interest which the Traction Company's earnings were insufficient to meet. On December 30, 1933, the Traction Company borrowed \$1,457,000 from Utah Power and Light Company to redeem the collateral gold bonds outstanding and the interest due.

Up to 1922 lease rentals were treated by Utah Power and Light Company as operating expenses. Subsequent to 1923, they were treated as deductions from earnings. When included as operating expenses the light and power consumers were carrying the burden of any guaranteed bonds and interest payments which Utah Light and Traction Company failed to meet. Even with these increased payments by Utah Power and Light Company, the income statement of Utah Light and Traction shows deficits for every year from 1921 to 1936, inclusive. The amount of deficit in each year from 1927 to 1933 inclusive was the same—namely, \$15,500. From 1934 to 1936, the deficits fell to \$3,950.

From a strictly rate-making point of view, it is questionable whether guaranteed interest payments should be included as operating expenses. The expense or deficit of street railway operation does not appear to be a reasonable cost to be borne by electric ratepayers. However, in calculating the rate of return here, total operating expenses, including the rentals, have been used.

The final installment of this article will include a discussion of the excess revenues collected by the company and a presentation of the rates of return on utility plant, calculated on various bases, as well as rates of return on stock equities, both total and common.

Anti-Trust Action and American Housing

By CORWIN D. EDWARDS*

ON OCTOBER 3, 1939 the Department of Justice announced the first of a series of grand juries called to investigate complaints of violations of the anti-trust laws in the various industries and trades which construct buildings or supply building materials. Since that time, New York, Chicago, Cleveland, Detroit, St. Louis, Pittsburgh, San Francisco, Los Angeles, and Seattle have been named as cities in which grand juries are now sitting or will shortly be called. Additional grand jury investigations will be announced from time to time hereafter.

My purpose here is to explain why this investigation has been started, the nature of the practices which are being investigated, and what the Department hopes to accomplish.

The Purpose of the Proceedings

The broad purpose which has led to this investigation is to bring the construction industry back to the high level of activity and employment which it attained during the 1920's. Today a part of the nation's construction is directly subsidized by such agencies as the United States Housing Authority and the Public Works Administration, and another part is financed on unusually favorable terms through the Federal Housing Administration. Nevertheless, with all the building which is receiving public aid included, the construction industry has reached only about two-thirds of its former peak volume and residential construction is well below half of its former peak.

* Department of Justice.

This is substantially the statement made before the Chicago Building Conference, October 10, 1939.

We all know that the public and industry must suffer from this idleness. The industry suffers from top to bottom. Manufacturers of building materials must do business on the basis of 30, 40, 50 or 60% of their capacity to produce. Distributors must scramble for an equally limited market. Contractors and sub-contractors must struggle for enough jobs to maintain their organizations. Labor must try to earn enough in five or six months of employment to support a family throughout the year. Each of these groups attempts to meet its burden by dividing up the available work or by charging enough to make expenses, even on the limited amount of work available. But such attempts do not solve anybody's problem; they merely decide what proportion of the total cost of idleness shall be borne by each group.

Other industries suffer, too, from stagnant construction. Between 1919 and 1935 the construction industry used about 15% of all the products made in the United States and at its peak produced nearly 15% of the total national income. Its peak employment was 2,400,000 persons, not counting the employment of the large industries whose products it consumed. To reduce the size of such a great industry by 1/3 is necessarily to hurt every industry which sells to it or to its employees. The unemployment of men and the idleness of business concerns in construction are a major obstacle to prosperity in the United States.

The standard of housing in the United States is miserably low because residential construction has not been meeting the needs of the American people.

About 4,000,000 dwelling units—16% of the total number in the United States—are regarded as unfit for human habitation. With all the public aid now available for housing, our rate of residential construction in 1938 was barely sufficient to care for the growth of population. It contributed scarcely at all to the replacement of these substandard houses. The nation's minimum need for new houses has been estimated by the Temporary National Economic Committee as about 525,000 housing units per year and by the National Resources Committee as 900,000. Yet we produced in 1938 only 345,000 units—at least 180,000 too few, according to the lower estimate of our needs, and less than 1/2 of what we need according to the higher estimate.

The whole problem has become more acute because of the war in Europe and the dangers which this war necessarily creates for the United States. Between 1914 and 1918 capital and labor were so diverted from the construction of dwellings that by the end of the war our housing shortage was one of our greatest problems. In 1914, however, we started without a handicap. If there should be a similar development in the next few years, it would start from a 10-year accumulated deficit of houses, which is already a major national problem. It is peculiarly important, therefore, to do what we can to make up this deficit in whatever time may be left before the economic stresses of the war in Europe distort our own economic system.

The construction industry's failure to produce the houses which the American people need is largely attributable to the fact that housing costs are too high. In 1936 only 15% of the houses built were intended to be sold for as little as \$4,000. Yet the Temporary National

Economic Committee recently brought out the fact that 52% of the city families in the United States cannot afford either to buy or to rent houses which cost more than \$4,000. The shortage of houses and the opportunity to expand the residential construction market lie in this low-price area. If the needs of half the American people are to be satisfied, the cost of houses must come down.

This is the problem with which we have to deal. In so far as restraints of trade which affect building contribute to the maintenance of building costs, they enhance directly the industry's failure to meet the public's pressing need for houses and thereby to reestablish itself upon a prosperous basis.

The Scope of the Proceedings

That cost-raising restraints abound in the building industry is notorious. Indeed, the present investigation is in response to complaints about this industry which have come to the Department in large numbers from more varied groups and more persistently than in the case of any other industry investigated in recent years. Among the complainants have been owners and prospective owners of houses, members of the rank and file of labor organizations, officials of labor organizations, sub-contractors, contractors, architects, real estate dealers, distributors of building materials, manufacturers of such materials, and public officials administering local, state, and federal housing programs. In one city, separate requests for investigation and action under the anti-trust laws came from the principal association of businessmen engaged in the building trades and from the central organization of building trades unions. In another city, the Chamber of Commerce requested the Division to investigate, making the charge that restraints upon building

were worse than anywhere else in the United States and had brought new construction to a standstill. The annual convention of the American Institute of Architects recently adopted a resolution which formally endorses the Department's investigation. The general agreement that anti-trust action is needed to end restraints has been unparalleled in the experience of the Department with investigation of restraints of trade in other industries.

One or two isolated prosecutions would not be sufficient to deal with the situation described in these complaints. Experience with past cases has shown that to correct some isolated practice does not do much to the cost of building and leaves the industry still so shackled that even the group which has been prosecuted often relapses into its old ways of doing business. Only by a consolidated attack upon all restraints can we affect housing costs, and only thus can we give individuals and groups a chance for vigorous competition.

Accordingly, the Department's program of investigation and prosecution is planned to cover the entire building industry. It includes the manufacturers and distributors of various building materials and the local dealers, contractors, sub-contractors, and labor groups of cities throughout the United States. The various grand juries will sit as nearly at the same time as can be managed. The objective will be, not prosecution for its own sake nor the selection of a few individuals or groups to be blamed for the troubles of the whole industry, but the simultaneous removal of restraints so that there may be a free field for building.

Preliminary investigations preparatory to the calling of grand juries have already been made on a wide scale. The practices found in the industries manu-

facturing and distributing building materials differ according to the circumstances of each particular industry. In general, they take the form of efforts to fix prices and efforts to exclude new enterprises and new ways of doing business. Sometimes an attempt is made to avoid illegality by setting up a price-fixing scheme in the form of a system of patent-license agreements or agency contracts. Sometimes an industry divides the available market or unites to make all sales through a joint selling organization. Sometimes a high level of fixed prices is attained by the general adoption of pricing formulae, such as basing point systems. For present purposes the devices do not matter. They are alike in their attempt to keep building material prices high. Some of the most successful of these schemes resulted in prices which were decidedly higher in 1937 than they had been in 1929.

The efforts to shut out new ways of doing things have been of several kinds. Sometimes improved building materials have been kept off the market because they were cheaper. Sometimes low cost distributors have been denied the opportunity to buy goods, and manufacturers who refused to participate in such boycotts have been themselves boycotted. In other cases boycotts have been instituted against manufacturers who sell direct to consumers. From the point of view of distributors, such schemes have been efforts to keep all business in their own hands. From the point of view of manufacturers they have usually been devices to strengthen a system of price-fixing.

By contrast with the variations among manufacturing and distributing industries, there is a marked similarity in the restraints found in various cities among local dealers, contractors, sub-contractors, and labor groups. Of course, not

all these practices are to be found in any one city, nor do they all appear in any one trade. Since it would be obviously improper for me to forecast the findings of any one grand jury, I shall describe the general pattern but shall not attempt to indicate what parts of it exist in a given city.

Dealers. Local groups of dealers in building materials sometimes attempt to prevent the use of materials sold by outside enterprises, particularly by mail-order houses, commission salesmen, and manufacturers who sell direct to the builder or the consumer. In some cases the sellers who use such unorthodox methods of distribution are boycotted by the dealers and thus excluded from the channels of trade for other products which they may wish to sell through dealers. In other cases local contractors are persuaded not to buy the offending products or local labor organizations are persuaded to refuse to work upon buildings in which such products are used.

This effort by groups of dealers to keep all business in their own hands is often accompanied by efforts to fix the prices at which building materials shall be locally sold. Sometimes this price-fixing springs exclusively from the dealers' desires to fix their own operating margins; sometimes it is a part of a broader price-fixing plan in which manufacturers and wholesalers participate.

Contractors. The most conspicuous restraints by general contractors are efforts to allocate business and to raise and fix the level of bids for business. In submitting their bids to the prospective owner of the building, general contractors sometimes agree in advance who shall be the successful bidder, work out a collusive bidding level by an exchange of the bids they intend to make, or pad their profits by collusively using a padded estimate of the amount of ma-

terials and labor required for a given structure. Such restraints, however, appear to be much less prevalent than restraints by other groups in the industry.

Sub-Contractors. In submitting bids to general contractors, groups of sub-contractors have worked out more elaborate restraints designed to control bidding. They may directly allocate business and collusively determine the level of bids. Frequently they deposit duplicates of their bids in a central office in order to make it easy to exert pressure upon low bidders to raise their bids. Sometimes they require that bids which are lower than the average by more than a stated percentage shall be automatically thrown out.

In addition, many of them have devised elaborate rules as to the method of bidding, designed to restrict the general contractor's freedom to bargain with sub-contractors. Among such rules are the requirement that bids be deposited in a central office in order that the successful sub-contractor's contract may be checked against the bid filed with the depository; requirements that the general contractor must accept without further negotiation one of the bids submitted to him by one of the bidding sub-contractors; rules that a general contractor may not call for bids after submitting his own bids; rules that any extra work which was not included in the original contract belongs to the successful sub-contractor and may not be sought by any other sub-contractor; rules standardizing the terms of the contracts; and rules establishing methods of cost calculation which must be used in arriving at sub-contractors' bids.

In addition to these bidding restraints, various groups of sub-contractors have arranged with the unions to exclude from the market contractors who are not

members of the contracting ring. In some cases, the sub-contractors' association maintains high membership fees and labor is denied to sub-contractors who have not joined. In other cases, special restrictions are imposed upon employment by out-of-town sub-contractors, designed to handicap them in their competition with local sub-contractors. In extreme instances a complete control over the behavior of sub-contractors is set up by means of a requirement that, to obtain union labor, every job must display a registration certificate which may be awarded to or withheld from any sub-contractor at the unchecked discretion of an agent representing either the sub-contractors' association alone or the association and the union jointly.

Labor. In the case of labor, as in the case of dealers, contractors, and sub-contractors, the situation differs from one city to another. In some cities building trades labor is not organized; in others, the activities of labor groups consist of collective bargaining over wages, hours, and working conditions. With these activities the Department has neither the desire nor the right to interfere.

But in some cities the leaders of certain building trades unions have engaged in three sorts of restraints. First, they have used their control of the union to set up rules that pervert organized labor groups into strong-arm squads which enforce restraints in the interest of sub-contractors and dealers in building materials. The withholding of labor from independent employers, in spite of their willingness to deal with the union and to observe union wages, hours, and working conditions, is the most conspicuous means employed. Second, certain racketeering business agents have enriched themselves by collecting pri-

vate graft in the form of strike insurance; in extreme cases they have even let those who pay such graft ignore the union wages, hours, and working conditions which must be observed by other employers of union labor.

Third, some business agents have enforced a series of union regulations designed, not to insure reasonable wages, hours, and working conditions, but to prevent the introduction of modern construction methods and thereby to require that an unnecessary number of hours of labor be used upon each building. Some of these regulations prohibit the use of new materials, particularly of those which have been fabricated in a shop rather than at the building site; some prohibit the use of new and more efficient tools; some require that the building itself shall be constructed to unnecessarily elaborate specifications; some conceal, under regulations as to the composition of the work force, a requirement that unnecessary labor be hired.

Largely by means of restraints such as I have just described, the costs of building have been kept at high levels in spite of the partial idleness which has resulted from the American people's inability to pay these costs. The ratio of building material prices to other prices rose by more than 10% between 1926 and 1937. During the recovery, building material prices rose more rapidly than other prices, in spite of the fact that on the down grade the prices of building materials fell less rapidly than other prices. The stair-step characteristics of these prices are largely the result of restraints by manufacturers and distributors. Construction costs, which reflect the restraints by local groups also, showed a similar record. The three private indexes of construction costs which go back to 1929 agree in showing an upward movement of such costs relative to the general

level of commodity prices. One of them shows construction costs in 1937 about 20% higher than in 1929. The other two show construction costs about 10% lower than in 1929, whereas the general index of commodity prices fell from 1929 to 1937 by more than 10%.

The rapid inflation of construction costs during a period of revival is illustrated by the experience of 1936-37. In one year the national average of costs in the construction of a standard small house, as reported by the Federal Home Loan Bank Board, rose about 10% and the average in some large cities rose as much as 25%. This increase was largely responsible for the recession in building which took place in 1937. In spite of the sharpness of this recession, decline in building costs was very slow; so that in the summer of 1938 the cost of a standard house was still about 7% greater than in 1936. Partly because of the persistence of this relatively high level and partly, no doubt, because of the publicity given to the present investigation of building restraints, the renewal of an upswing in building during the last year has brought only isolated increases in prices and costs. Indeed, the general average of such costs has fallen about 1% during the last year.

Apart from their immediate effect in supporting high building costs which limit construction, the restraints upon building are a major handicap to pioneering in the building industry. The Department has encountered cases in which new and cheaper building materials are kept off the market for fear of boycotts by dealers or by unions. It has found a considerable number of architects and builders whose experiments with simplified forms of construction have been harassed by groups anxious to protect their vested interests in the old ways of doing things. Until

such experiments are given a fair trial, no one can say to what extent they may lower building costs. It is clear, however, that the methods which have led to low cost production in other industries have, for the most part, not yet been adapted to the peculiar circumstances of the building industry. It is, therefore, particularly important that those who accept the economic hazards of an effort to modernize the building industry shall be protected against the additional hazards of having to fight a guerilla warfare against organized groups anxious to destroy them.

What May Be Accomplished by These Investigations?

In many cases the accretion of restraints upon building has caused dismay even among those engaged in such restraints. Individually they have been caught in a system of restraint too prevalent to be successfully resisted by a single enterprise or a single local union. The prevalence of complaints from within the industry is evidence of the desire for help in getting rid of this system. Even the preliminary investigations by the Department of Justice have led, in certain cases, to the abandonment of certain collusive practices, the dissolution of certain bidding rings, and the lowering of certain prices. It is believed that the majority of the industry will take advantage of the opportunity offered by the Department's broad attack to set its own house in order. Prosecution of the entire system of restraints which may be found by grand juries in selected cities throughout the country will provide an example for other cities and will permit the allocation of public monies devoted to housing at the points where the removal of restraint has made possible the greatest return per dollar expended. By formulating and enforcing a

minimum standard of competitive conduct for the industry, the Department expects to secure acceptance of that standard over wide areas without the need for prosecution at every point.

The removal of restraints should lead to a significant reduction in the cost of housing. In one large city a responsible organization of builders has informed the Department that in its opinion the success of the Department's program would reduce building costs by at least 25%. The extent of such reduction in costs will necessarily depend upon the degree to which restraints have affected the particular city and upon the degree of success achieved in the proceedings. There appear, however, to be many cases in which competition would reduce the charge for particular building operations by from 10 to 50%. A part of this reduction should consist in lower prices and lower charges for services by groups which have collusively inflated their charges. Another part should consist in the elimination of methods of distributing materials and of constructing houses which are clearly not efficient.

In addition to the immediate reduction of costs, the removal of restraints should make possible a burgeoning of experiments with new forms of construction, ranging from an increased use of work-shop fabrication of electrical and plumbing equipment to the designing of standardized parts on a scale so broad as to make construction a mere job of assembly. A number of experimental builders have indicated to the Department that they intend to proceed with or expand such experiments as soon as they can feel that it is safe to do so. As in all pioneering, many of the new methods will, no doubt, prove impractical. But, as in other industries, a free field for experiment should mean a progressive development of simplified proc-

esses by which housing costs can be lowered.

Such tendencies toward lower construction costs may be expected to enhance the effectiveness of other measures toward the revival of construction by removing influences which now counteract their effect. Much of the high cost of housing arises through interest rates, legal fees, land costs, haphazard management, and intermittent operation, and requires remedies which go beyond anti-trust prosecutions. In recent years Federal and state governments have been particularly active in attempting to deal with the financial obstacles to low cost housing. The Department of Commerce is now exploring the possibilities of simplifying building codes, improving the design of houses, and promoting the development of low cost housing by private enterprise. Nevertheless, the removal of obstacles and costs which affect building has often been merely the opportunity for groups in the building industry to tighten their restraints of trade and to absorb in increased charges whatever savings have been made possible by government action. Removal of such restraints should prevent such cancellation of the gains from constructive policies of public agencies concerned with housing.

The success or failure of the effort to restore a free building industry may have an even broader significance. As yet, programs of public aid to construction in the United States are much more modest than those of many other industrial countries. In Great Britain the number of houses built with government aid between 1919 and 1936 was nearly as great as the number built by unaided private enterprise. In Germany 80% of the houses built since 1919 have received direct public aid. Indeed, after 1925, about 10% of all German houses were

erected by public agencies. If America's housing needs cannot be met by private enterprise, it is inevitable that the limited programs of public aid in the United States will be gradually extended. To endeavor to meet the full American need for low cost housing by a plan similar to that of the Federal Housing Act might involve a program of more than three billion dollars a year in loans or of more than one billion dollars in federal grants in the development of such a program. State action would inevitably replace private enterprise as the mainspring of American residential construction.

Not many people of the United States want the future of housing to take this form. Most of us do not believe that it need do so. The alternative is for private enterprise to succeed in providing an adequate supply of low cost housing. The present program of the Department of Justice will contribute to this result.

The possibilities which may be opened

by the success of the program are well expressed in a message which Thurman Arnold, Assistant Attorney General, recently sent to the Chicago Building Congress. He said:

"As reduction of costs, through removal of restraints and otherwise, brings the cost of new houses within the reach of a larger part of the population, there is reason to believe that the housing industry can repeat the experience of other industries in which costs have been progressively lowered. The expansion of its volume of business can increase the opportunities for employment and facilitate high annual earnings for labor and profits for business men on a basis of low prices rather than high prices. Operating on a basis of large volume, the industry can resume its pivotal place as a breeder of American prosperity. Operating at low costs, the industry can supply decent houses, not as now to a minority, but to the entire American people. Nothing in the inherent nature of construction makes such a future impossible; but the tangle of restraints must be cleared away in order that the leaders of business and of labor may have the chance to go forward."

The Prospects for Continued Electric Rate Reductions

By W. J. CROWLEY*

UNQUESTIONABLY, the continuing downward trend in rates for electric service is bringing into clear focus certain problems, which, although they have been recognized for some time, were considered more as unfavorable conditions rather than as problems *per se* when charges for service were on higher levels. In its broad aspect, the situation is one of price impacting downward on a somewhat inflexible cost level. In the period during and immediately after the World War, a similar pressure was exerted, but with the force coming from the opposite direction; the sharp increase in operating expenses pushed costs up against a relatively inflexible rate level. The situation was critical at the time, naturally, for only one year's losses are required to place a company in receivership; yet the outlook for the industry over the longer term was not unfavorable. Of course, that fact, which is so apparent today, may not have been so clear at the time that it could serve to illuminate the rosy future prospects of the industry and thus relieve utility managers of the worries arising from their then current problems.

The situation that existed in 1917-21 and that which exists today are entirely different. In the earlier period, war-time policies had resulted in inflation and sharp increases in prices. Post-war corrections naturally resulted in deflations, and prices had nowhere to go but down. In contrast, at the present time, the country has hardly ended a long defla-

tionary period and prices are low. The monetary prospects, even in or out of the light of the European situation and its possible repercussions, are certainly all in the direction of inflation, and the price level has nowhere to go but up. Again, from the same influences, interest rates were prohibitive in 1917-21, whereas now they are at very low levels, although tending to rise. Of course, the industry has as far as possible taken advantage of this situation through refinancing, but the effect of existing low rates will not carry through on future borrowing.

Aside from differences arising from general economic factors, the industry itself is in an entirely different condition today. At the time of the World War, the industry was still relatively new; average consumption was very low;¹ system load factors were low, with much room for improvement; production was inefficient; thermal efficiency of generation was very low;² methods in general were untried and inefficient. In short, there was room for great future benefits from good management. Since that time,

¹ Average kilowatt-hours (approximate) for the United States:

Year	Residential Customers	Per Capita
1917	268	220
1938	845	720

² Average pounds of coal consumed (approximate) per kilowatt-hour of net output for the United States:

Year	Lbs. per Kwh.
1917	3.30 (U. S. Geolog. Survey)
1938	1.41 (Federal Power Commission)

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material improvement has been made. System load factors are relatively high, with markedly less room for improvement than existed in 1920. Important advances in production technique have been made, and large generating units now in operation are using less than a pound of coal per kilowatt-hour, or about 11,000 Btu. per net kilowatt-hour produced. In view of the theoretical limitations in thermal efficiency and the somewhat lower efficiency practicably obtainable, it appears that in the future only relatively small savings are in prospect from this source. In similar fashion, but perhaps not to the same extent, because technological development has been very rapid during the past two decades, advances have been made in other utility work. Billing, meter reading, and so on are done more efficiently, although it is not intended here to convey the impression that opportunities for further improvement do not exist.

The purpose of this discussion is not to contrast the situation in which the utilities find themselves today with that in the World War and immediate post-war periods. The contrast is used merely to emphasize (1) that rates have been coming down, and that prices and costs have also come down, but appear ready to reverse their trend; and (2) that temporary rate increases, such as were used to relieve the utilities during the last crisis, are not the answer to the current problem.

Marginal Character of Recent Expansion

The unfavorable movements, over a period of time, of certain general economic factors are not the only causes of the utilities' difficulties. In order to meet the demands that have been imposed upon them in the last few years, utilities have begun to exploit certain marginal

types of business, for example, the electric range business. Also, as electrification of homes and businesses has progressed, it has moved from the centers toward the fringes of populated areas. Even in developing markets among the large marginal group in the rural areas of the country, the same tendency has been exhibited. The best areas, the "cream," are served first; the other areas later.

The effect of taking on these marginal types of business is acceleration of the impact of the general economic factors previously discussed. They tend to increase average expense per unit of output, thus broadening the base upon which such factors as rising price levels will take effect. Very significant, too, is the fact that a substantial portion of the logical present potential business of electric utilities appears to be business that is distinctly marginal. The situation as it now exists is one of dynamic possibilities.

The problem brings up for consideration several aspects of the rate-reduction problem. It will be of interest to review these ideas in the light of future possibilities, since they have been discussed so many times in the past in the light of other conditions. The first of these problems is the protection of revenue.

Protection of Revenue

From time to time in utility trade journals there appear articles under the title "Rate Cut Recovered in Eleven Months," or other captions having similar import. The gist of these articles is a discussion of the methods used to build revenues up to their pre-rate-cut level. What is going to be the effect of the economic factors previously discussed on this situation? It appears that the effect will be slight. If anything, gross revenues will tend to be recovered more rapidly

if rate cuts are made, principally because a combination of lower rates and higher prices for other services and goods will have a cumulative effect in breaking down buyers' resistance. This statement is made subject to reservations concerning the purchasing power of particular groups involved and also concerning the phase of the business cycle. The reasons for these reservations will be made clear later in this discussion.³

But recovery of net income rather than gross revenues, as has been recognized for some time, is the real heart of this problem. What is likely to be the effect of rate cuts in this case? It seems reasonable to expect that the rate of recovery of net income is likely to be retarded. Three factors will be operating: (1) the tendency toward marginal types of business where lower proportions of gross revenue are available for net income; (2) the likelihood of higher costs in connection with all new business because of the factors discussed above; and (3) the effect of those factors on costs of existing business, with the consequent tendency toward reduction of existing net.

Naturally, consideration of the problems regarding net income are of first importance when rate cuts are considered, but they are going to be of greater import. It is going to be necessary to consider seriously where forthcoming rate cuts are to be made. For example, in residential rates, reductions in the in the now low follow-on blocks are almost prohibitive in view of the cost factors already discussed. Reductions in the first steps, however, simply intensify the "unprofitable customer" problem. Therefore, the problem is—*where* shall the reduction be made?

Moreover, it is going to be increasingly

important to know *when* rate reductions should be made. Since rapid recovery of net will be necessary, reductions must be made when new business can be added. In spite of the very common acceptance of exaggerated ideas about elasticity of the demand for electric service, it is not likely that the moderate rate cuts which can be made in the future will result in significant increase in sales in depression years such as 1932 and 1933; in fact, they will probably not result in significant increases in sales during years of prosperity. Proper timing of rate reductions will be resorted to, however, not so much with the view of further unfreezing customers' demands, as with the intention of avoiding the loss in net income that will undoubtedly result if the reductions are taken at the beginning of the down trend of the business cycle.

Another problem of the industry which must be considered in connection with rate reductions is that of the "unprofitable customer." With the substantial reductions which have been made since 1930 in the charge per unit in the initial blocks of residential rates, and with no increase in minimum bill (in some instances, decreases), the problem of the unprofitable customer has become increasingly acute. Some companies make active efforts to increase the consumption of low-use customers with the intention of making them "profitable"; other companies appear to ignore the situation completely. Just what to do about this class of consumers may become more of a problem than it has been, not only because of increases in the size of the class, but also because the promotional expense in connection with increasing electricity consumption of these customers has been relatively high, and increases in this expense are quite serious, when considered in the light of

³ See page 469ff.

the resulting increases in consumption and revenue. Other reasons will appear later.

In the 1917-21 period, temporary rate increases were resorted to in order to bring needed relief to hard pressed utility companies. Under the conditions existing at that time this method was logical and sensible. The situation is not yet sufficiently acute to demand temporary rate increases, but the contrast drawn in the opening paragraphs suggests that under existing conditions perhaps temporary rate *cuts* would be advisable. A still better idea might be use of the "customer dividend"⁴ by which excess earnings for a given year are passed back to the consumers. Under this plan the customer gets the full benefit of excess earnings of the company, and the utility company's risks are reduced somewhat.

The Basis for Rate-Reduction Decisions

The difficult task of furnishing competent advice as to where, when, and how rate reductions should be made may be simplified a great deal if we can find some historical precedent to guide us in our decisions. Probably the best guide that comes to mind is previous experience with respect to consumption of electricity. What has been the trend of consumption and what possibility of future increase is indicated? Information on the latter subject is of particular interest because increases in consumption indicate possibilities of growth, development, and chance for further economy.

Data for the nation as a whole are

naturally of interest but are of little value to a given utility company, since the effects of peculiar local conditions are completely buried in such data. On the other hand, the cost of examining consumption data for a representative and adequate cross section of individual consumers over a period of years is prohibitive. A practicable method in connection with residential consumption⁵ is that of determining and comparing the annual average use of electricity per customer for individual communities⁶ or groups of communities. Each community is unique when all its characteristics are considered, yet each characteristic can be singled out, graded, evaluated or indexed more or less accurately, and compared on that basis with the similar characteristic of another community. For example, among the characteristics that might be compared are: (1) proportion of families in single-family homes; (2) number of residential telephones per 1,000 population; (3) proportion of foreign-born population to total; (4) average number of persons per family; (5) size of community, etc.

To the writer it appears that it is becoming increasingly important to consider residential customers and their electricity consumption in connection with their relative purchasing power. Studies were made that showed the tendency for the average residential kilowatt-hour consumption of communities of different purchasing power levels to keep their relative position.⁷ Further studies have been made along this line, the results of which it is believed will be of interest.

⁴ Such as has been paid to customers in Hartford, Conn. by the Hartford Electric Light Co. under the policy originated by Samuel Ferguson in 1924.

⁵ Although the data used are drawn from the residential class, the purpose is only to illustrate the methods of attacking the problem at hand. It should not be inferred that the problem relates only to residential rates.

⁶ Not necessarily using municipal limits as boundaries of the community. For example, a large city could logically be broken up into several homogeneous areas.

⁷ See W. J. Crowley and C. H. Baily, "The Relation of Electricity Consumption to Purchasing Power," 13 *Journal of Land & Public Utility Economics* 350-9 (November, 1937).

The Data. A group of communities having over 1,000 population in a territory that has been a uniform rate area for many years was studied. The sales policies with respect to appliances as well as electric service have been quite uniform over the entire territory. Each of the towns served also has gas service, and the rates for this service are quite uniform over the entire group of communities. In all, 84 communities were studied⁸ and these fell into the following population groups:

Population	Number of Communities
Above 10,000	20
5,000 to 10,000	13
3,000 to 5,000	14
2,000 to 3,000	12
1,000 to 2,000	25
Total	84

The Method. Previous studies showed that electricity consumption tends to be proportional to relative purchasing power. This suggested that it might be of interest to determine and compare annual growth as well as annual rates of growth in use of electricity over a period of time. First, the communities were arranged in descending order according to their relative purchasing power, using individual income-tax data. Next, the communities were listed in descending order, according to average annual kilo-

watt-hours per customer. The two lists were quite similar, as was expected. After some study it was decided to use the second list as the basis for the comparison that was to be made.⁹

The next step was to break the list up into quartiles. This was done simply by determining the average number of customers served in the 84 communities in 1931 (the first year under consideration), then arranging the communities by groups, each having one quarter of the total number of customers under study, or rather, it should be said, so that *approximately* one quarter of the customers under study fell in each group, because towns which fell at group limits had to be entirely in one group or the other. The division was quite close, however, the number of customers in each group being as follows:¹⁰

Quartiles	1931	1938	Increase	Per Cent Increase
1st	53,900	55,584	1,684	3.12%
2nd	52,154	57,968	5,814	11.15
3rd	48,836	53,843	5,007	10.25
4th	49,404	53,990	4,586	9.28
Total	204,294	221,385	17,091	8.36%

¹⁰ The communities also were quite evenly divided among the groups, as shown here:

Communities	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Over 10,000	5	5	6	5
5,000-10,000	4	5	1	3
3,000-5,000	—	8	2	5
2,000-3,000	1	4	6	4
1,000-2,000	1	5	11	10
Total	11	27	26	27

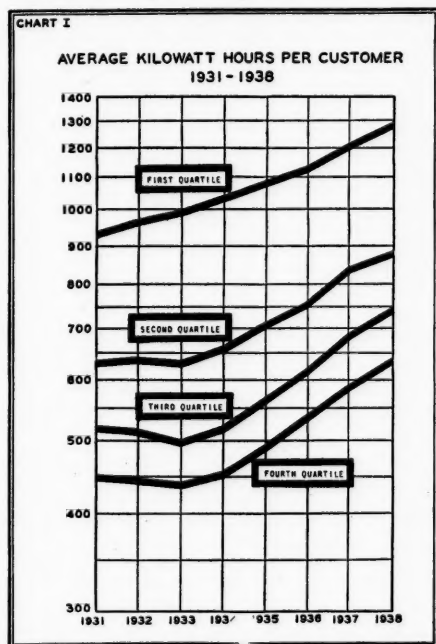
It is interesting to note the average annual consumption range of the communities in each quartile group:

Quartiles	Kwh. Range		Average Kwhs.
	From	To	
1st	856	1458	931
2nd	557	848	627
3rd	479	557	515
4th	326	478	449
All	326	1458	638

⁸ Incidentally, certain other communities of more than 1,000 population in the uniform rate area under study were omitted from the comparisons, either because they were without gas service or had gas service under different rates and policies than were in effect in the communities included. These certain communities were omitted because of the effect that lack of gas or higher gas rates may have had on electrical consumption.

⁹ The reason is that, although relative purchasing power now appears to be the most important single factor in determining how much electricity the residential consumer will use, other factors are also effective, and it was felt that the actual average consumption of the towns studied would place the towns more nearly in the order that would be arrived at if all influencing factors were considered.

The Results. After the quartile groups were set up, the average annual consumption per residential customer was calculated for the period 1931-38, inclusive.¹¹ The results are shown on logarithmic scale on Chart I. This chart indicates that the average rate of growth in consumption for the several groups varied from year to year. This was ex-



pected, because it seems logical that depression years would show lower rates of growth than more prosperous years. In addition, the chart shows that the average rate of growth differed as among groups. For example, the first quartile group showed gains every year. The second quartile group gained in 1932, declined in 1933, then gained every year thereafter. The third and fourth quartile groups declined in 1932 and 1933, then

gained every year—in fact, gained rather spectacularly from 1935 on.

This recitation makes it appear that gains and losses were haphazard. On the contrary, a fairly regular pattern is exhibited by these changes, which show up to much better advantage on Chart II. In this chart the bars represent percentage increases in average consumption for each year over that for the previous year. Several interesting points should be noted. First of all, as indicated above, there is considerable regularity or pattern in the rates of change.¹² In 1932 and 1933 they decline from the first quartile to fourth, whereas in 1935, 1936, 1937, and 1938 they increase from first quartile to fourth. This is a revelation that further complicates the problem of the low purchasing power group of consumers. It seems reasonable to suppose that intensive development of this segment of the market will result in making this business more volatile than it is now, that is, more vulnerable in time of depression. Second, the relative change in the third and fourth quartile groups is greater. The rate of gain is lower in depression years and higher in good years.

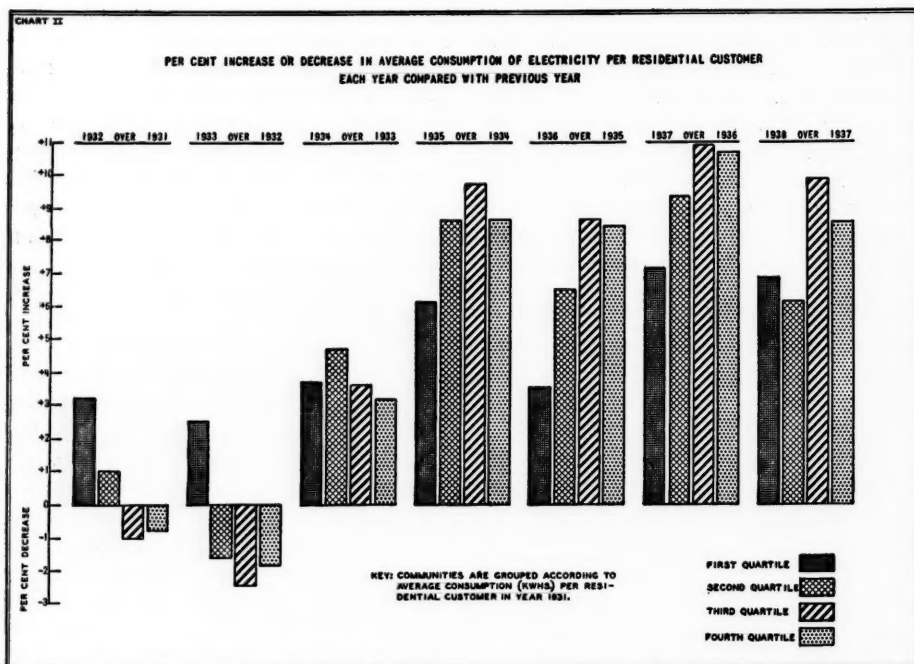
The rate of growth in 1934 seems to be very nearly the same for all four groups. It is interesting to note that the recessions of 1936 and 1938 show up quite markedly in the rates of growth.

The average growth in consumption per customer of the entire group studied for each year are as follows:

Year	Average Consumption per Customer (Kwhs.)	Increase Each Year over Previous Year (Kwhs.)
1931	638	—
1932	645	7
1933	646	1
1934	668	22
1935	718	50
1936	760	42
1937	828	68
1938	889	61

¹¹ The effect of new customers added was taken into consideration.

¹² Only a slight change in the fourth quartile results would give extreme regularity to the pattern.



Note that the effect of the decreases experienced in the lower groups is more than cancelled by the effect of gains in the upper groups.

The regularity of pattern is shown also, but to a somewhat lesser degree, on Chart III. In this diagram, the bars represent, instead of percentage increase in average consumption for each year over that for the previous year, the absolute increase in kilowatt-hours per customer. This gives, for each year, the relative importance of customers in each of the four groups, so far as increase in consumption is concerned. For example, in 1936, each customer in the fourth quartile group increased his consumption 41 kwhs., whereas customers in the first group were increasing only 38 kwhs.; in 1938, however, the first group customers were increasing 82 kwhs. on the average, while the fourth group customers were doing only 1/2 as well.

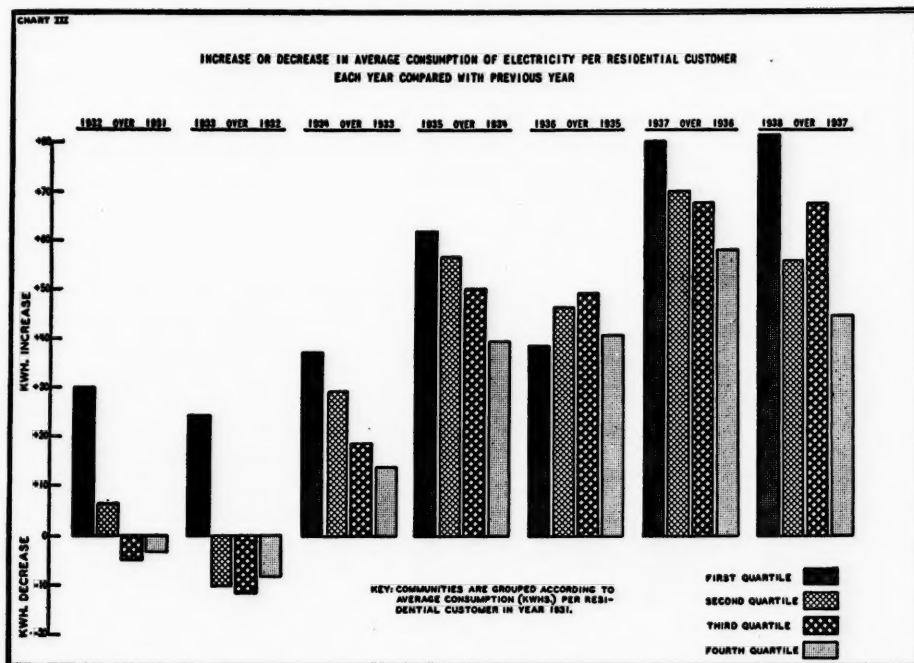
The next question is, what are the cumulative results for the entire period for these four groups. Is one of the groups tending to outstrip the others, or are they all keeping the same pace?

In the period in question (1931 to 1938) the results are as follows:

Quartiles	Average Consumption per Customer		Increase in Kwhs. 1938 over 1931	Per Cent Increase 1938 over 1931
	1931	1938		
1st	931	1284	353	37.9%
2nd	627	879	252	40.2
3rd	515	749	234	45.4
4th	449	633	184	41.0
Total	638	889	251	39.3%

These results show that in the eight-year period the high purchasing power group increased its average consumption by a very substantial amount, but this group produced the lowest relative gain.

If we look at the data in another way,



that is, if we compute the gain (absolute and relative) which each group has made since its lowest year in the period under consideration, we have the following:

Quartiles	Lowest Average Consumption in Any Year (Kwhs.) 1931-1938	Average Kwhs. 1938	Increase	Per Cent Increase
1st	931 (1931)	1284	353	37.9%
2nd	623 (1933)	879	256	41.1
3rd	498 (1933)	749	251	50.4
4th	438 (1933)	633	195	44.5
All	638 (1931)	889	251	39.3%

This shows how much more rapidly the two lower groups increased after the turning point occurred, and may have important social implications. Of course, it will be argued that some portion of the gain shown for the lowest group in the table immediately above was recovery of business previously lost but, nevertheless, the increase, or rather the

portion of the budget which electric consumption represents, must be related to the budgets of the families in each group in order to get a truer picture of what the increase means. As a further refinement, the increase in electricity budget might be related to the *increase* in total income.

The above rates of growth suggest that the lower groups are tending to push their average consumption toward that of the first groups. The data are for years, however, which are principally "recovery" years and, if the comparison is carried on to the nadir of the next depression, it may be that the lower groups will not show up as favorably over an entire business cycle.¹³ It is apparent, however, that the pressure to increase use and, therefore, standard of living is present.

¹³ The study could not be projected back readily, because changes in classification of accounts and methods of counting customers destroyed the comparability.

Conclusion

In conclusion it should be stated that the writer's purpose has been more to point out the problem that exists, and to indicate the nature of methods that might be used to solve it, rather than to recommend a solution. To summarize, it is becoming increasingly difficult to recover net revenue lost in rate cuts, and the present economic outlook seems likely to aggravate the condition. More and more attention must be given to how, when, and where rate cuts are to be made, if at all. It must be recognized, sooner or later, that rate reductions cannot go on forever, which in itself is part of the answer to the problem.¹⁴

¹⁴ In some quarters the feeling may exist that further rate reductions may be made possible by lowering of expenses, with particular reference to distribution expense. In this connection it should be pointed out, however, that the type of service being furnished today is vastly improved over that furnished in 1917 or even over that furnished only 10 years ago. The many vital uses to which electricity is put makes the customers expect a higher and higher type of service. The service of 1920

The analyses that have been presented constitute only one step toward the quantitative analysis that will be required before the electric utility industry satisfactorily solves the problem before it. Each company's problem must be answered in the light of the local situation. Partial analysis must be avoided. For example, the data on page 469 show that the average customer increased his average consumption each year over the period studied. Taken alone, this might suggest a situation not at all comparable with that actually uncovered. Areas other than the one studied are certain to have a different distribution of communities according to purchasing power, and hence will have a modified solution for the local problem.

would not be tolerated today. The service of today probably will not be tolerated in 1950. Improvement of service, prevention of interruptions, and reduction in their duration become progressively more expensive as service approaches perfection. Add to this the probable effect of higher price levels on distribution expenses and it becomes apparent that substantial reduction in distribution expenses is not immediately in prospect.

Urban Land Department

MORTON BODFISH, *Editor*

A Tentative Classification of Residential Occupance in the United States

CONSIDERED compositely, the character of residential occupance in the United States merges imperceptibly from urban to rural. This condition renders futile an inclusive definition of either type, but suggests the desirability of a tentative classification of residential occupance. It is hoped that this classification will provoke critical thought and constructive comment, and result in acceptable terminology requisite to an understanding of the many practical and theoretical aspects of the "urban-rural fringe" and of city and county zoning. Arbitrary distinctions, such as those based solely on density, do not suffice. Essentially complete descriptive definitions are needed for the array of residential occupancy. These should treat with functions, structure, forms, and institutional controls in an attempt to give an adequate characterization.¹

Urban Residential Occupance is characterized, for the most part, by:

1. Location within the limits and under the institutional control of an incorporated place;
2. Resident families, the earners of which are engaged in commercial, industrial, transportation, constructional, and service pursuits, and commute to work within their incorporated place or some adjoining incorporated place;
3. Detached dwellings, dwellings in rows, apartment buildings, and associated lots used for residential and recreational purposes;
4. Surfaced, named, and lighted streets;
5. Sidewalks, alleys, and private garages;
6. Water connections, sewer, and refuse removal;
7. Door mail boxes and dwelling address numbers;
8. Connections for electricity, gas, and telephone;

¹ Exceptional conditions represented by company-owned unincorporated places, villages within New England towns which are not separately incorporated, very

9. Landscaped and tended yards.

Compact Semi-urban Residential Occupance is characterized, for the most part, by:

1. Location within the compact settlement of an unincorporated place adjacent to an incorporated place or places;
2. Resident families, the earners of which are engaged in commercial, industrial, transportation, constructional, and service pursuits, and commute to work within near-by incorporated places;
3. Detached dwellings and associated lots used primarily for residential and recreational purposes, and secondarily for vegetable and flower gardens;
4. Surfaced and lighted streets;
5. Private garages and other small out-buildings;
6. Street-side mail boxes;
7. Connections for electricity and telephone;
8. Tended yards.

Isolated Semi-urban Residential Occupance is characterized, for the most part, by:

1. Isolated locations outside incorporated or unincorporated places and adjacent to arterial highways or other all-weather roads;
2. Resident families, the earners of which are engaged in commercial, industrial, transportation, constructional, and service pursuits, and commute to work within near-by incorporated places;
3. Detached dwellings and associated grounds used primarily for residential and recreational purposes, and secondarily for vegetable and flower gardens;
4. Roadside mail boxes;
5. Connections for electricity and telephone;

small incorporated places, and rural villages of the European pattern must await subsequent treatment.

6. Outbuildings, including garages;
7. Tended yards.

Semi-rural Residential Occupance is characterized, for the most part, by:

1. Locations adjacent to incorporated places and along connecting arterial highways or other all-weather roads;
2. Resident families, the owners of which are engaged in part-time commercial, industrial, transportation, construction, and service pursuits within adjacent incorporated places;
3. Detached dwellings and associated acreage used primarily for small scale subsistence farming, and secondarily for residential and recreational purposes;
4. Roadside mail boxes;
5. Connections for electricity and telephone;
6. Small outbuildings, including garages.

Rural Residential Occupance is characterized, for the most part, by:

1. Isolated roadside locations outside incorporated or unincorporated places;
2. Resident families, the workers of which are engaged in farming within the immediate vicinity;
3. Detached dwellings and associated acreage used primarily for crops, pasturage, and woodland, and secondarily, adjacent to the dwellings, for residential and recreational purposes and for vegetable and flower gardens;
4. Roadside mail boxes;
5. Connections for electricity and telephone;
6. Structures, such as barns, silos, corncribs, tobacco sheds, livestock pens, well- and spring-houses, and combination tractor-farm-machinery-automobile sheds.

MALCOLM J. PROUDFOOT

Bureau of the Census,
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A Yardstick of Residential Lot Needs

THE tentative measure of residential lot needs which is presented here is the by-product of another and larger study.¹ Several years ago the Chicago Regional Planning Association collected data on the number of lots recorded in the Chicago region since 1871. From these data the Association hoped to develop a measure of residential land needs which would add another link to the chain of rule-of-thumb measures of land-use requirements expressed in terms of population. Thus, it had been determined that approximately 50 feet of business frontage (or two lots) are necessary for every 100 of the population; that about 10 acres of recreational land are required adequately to supply the needs of every 10,000 persons; and that four acres of industrial land should be provided for each 1,000 of the population. The question was, could a corresponding ratio be developed for residential land use?

All the other yardsticks had been based on actual counts or measurements or on adequate samples representing the land *actually*

used for each specific purpose. No such information for residential land was inherent in the data on recorded lots. However, in the process of measuring the surplus of recorded lots in the region, it was necessary to estimate the number of lots needed for residential purposes. This measure of need had to be substituted for the desired measure of use, since data for the latter were not available. When this measure of need was finally checked against the best sources available, the results seemed to warrant their presentation as a tentative rule-of-thumb for residential lot requirements.

The Measure of Need

The problem was approached from the point of view of the local communities within the region. Detailed explanation of how these areas were delimited is not necessary here, since the procedure has already been described in the *Journal*.² It is sufficient merely to point out that 35 local communities were designated, with areas correspond-

¹ Helen C. Monchow, *Seventy Years of Real Estate Subdividing in the Region of Chicago*, to be published soon as No. 3 in the series of Northwestern University Studies in the Social Sciences.

² Helen C. Monchow, "Population and Subdividing Activity in the Region of Chicago: 1871-1931," 9 *Journal of Land & Public Utility Economics* 192-206 (May, 1933).

ing as closely as possible to a township or townships, since these were the units in which the recorded lot data were collected. Finally, these local communities were separated into two groups—*independent* and *suburban*—according to their degree of dependence on the central city, Chicago.

In order to estimate the number of lots needed to house the residents of a given community it was necessary to resort to the data on population for the area. The method used was to calculate the number of families in the area, correct that figure for the multi-family influence where possible, and then designate the result as the number of dwellings and therefore the number of residential lots needed. In cases in which no indication of the extent of multi-family living was available, the population was assumed to be housed in one-family structures—an assumption which tended to increase the number of residential lots required. Consequently, the estimate of housing needs is ample.

This method of establishing need in terms of urban population has its limitations. A question will be raised at once as to why the number of dwellings in the various areas was not taken directly from the Census or from real property inventories. The fact is that the larger study, of which this is a part, was concerned with trends over a 70-year period, and only in recent years has it been possible to get census figures on number of dwellings for any considerable portion of the urban areas included in this study. And, of course, real property inventories are recent innovations, as well as being far from complete.

Another limitation is involved in the assumption that each dwelling is located on one lot. Obviously, two dwellings may occupy a single lot or one dwelling may occupy two or more lots. Without specific information on such instances, no adjustment can be made, and it may be assumed that the two groups will approximately cancel each other.

Finally, the data on estimated residential lot needs are expressed in terms of the *urban* population in a given township, whereas the data on recorded lots are for the entire township. This discrepancy is not serious, however, if it is assumed—and this assumption has been checked with persons who are thoroughly familiar with the physical picture of the region—that the majority of persons living outside incorporated areas live on

farms. In other words, recorded lots are provided for urban use, and therefore their correlation with urban population only is justified.

Reference should also be made to the exclusion of Chicago from the calculations. Although estimates can be made for the central city, the likelihood of considerable error prompted omission of such figures. Among the obstacles to be overcome were the constantly shifting boundaries of the city and the complexity of its multi-family living arrangements. Because of these difficulties, it seemed the wise course to omit an estimate of residential land needs for the city of Chicago.

The Method Tested

In order to ascertain the validity of these measures of need, the data were subjected to two tests. The lots needed were compared with (1) the number of improved lots, where available; and with (2) the estimated number of residential structures as revealed by the various real property inventories. Neither of these control series is complete for all areas studied, but as far as they go they supply an interesting check on the method adopted in this investigation.

Table I presents this comparison. In general, the agreement between the estimates and the actual counts is surprisingly close, despite certain important limitations in the series used.

With respect to improved lots, the major limitation is the extreme variation in the definition of this term from jurisdiction to jurisdiction. Thus in one county an improved lot is "one which has a building of any kind on it." In another, this definition is supplemented by the phrase—"buildings of any type—barn, house, chicken house, etc." Still a third county considers a lot improved if it "fronts on an improved street, with utilities in, etc." All three of these definitions were found within the Chicago region. Clearly, in the light of these variations, no great weight can be attached to this measure of use. However, it does afford an approximation of lots used, and for this reason it may legitimately be employed for checking purposes.

One other limitation of the improved lot data should be noted. These figures were not to be had for the year 1930; figures for the nearest years available had to be employed.

Accordingly, 15 of the items are for the year 1928 and 12 are for 1934-5. The former are likely to be low because of the considerable volume of construction in 1929 and 1930. The latter are likely to be more truly representative of the 1930 situation because of the negligible amount of building between that time and the date when the measures were taken. It is not possible to make any adjustments in the light of this discrepancy in dates; all that can be done is to point out the lack of strict comparability and bear it in mind in interpreting the results of the comparison.

The second check on the estimate of residential lot needs is afforded by comparison with the number of residential structures taken from the real property inventories. In the instances available for comparison, the agreement between the two figures is strikingly close, in spite of the discrepancy in dates between the two series. Although the RPI figures are for the years 1934 through 1936, the generous allowances in the estimates, caused by lack of precise data on the multi-family factor, make the agreement close. The widest divergence, which occurred in the case of Joliet, is

TABLE I. COMPARISON OF ESTIMATED LOTS NEEDED WITH IMPROVED LOTS AND ESTIMATED RESIDENTIAL LOTS WITH RESIDENTIAL STRUCTURES

Cities	Improved Lots*	Estimated Lots Needed for All Purposes	Residential Structures†	Estimated Residential Lots Needed
Independent:				
Racine.....	—	—	15,565	15,427
Kenosha.....	—	—	11,058	11,049
Waukegan.....	11,517‡	9,538	—	—
Elgin.....	7,814‡	8,679	—	—
Batavia.....	8,575‡	3,849	—	—
Aurora.....	4,532‡	12,169	12,122	11,242
Joliet.....	13,771‡	9,616	14,164	8,722
Harvey.....	14,592§	16,122	—	—
Chicago Heights.....	7,999§	5,710	—	—
Kankakee.....	11,639§	6,221	—	—
Hammond.....	—	—	22,079	22,488
Gary.....	—	—	16,622	16,363
Crown Point.....	—	—	1,085	1,033
Valparaiso.....	—	—	—	—
Michigan City.....	—	—	4,027	5,264
La Porte.....	—	—	3,779	3,756
Suburban:				
Zion.....	1,899‡	1,610	—	—
Libertyville.....	1,454‡	1,181	—	—
Highland Park.....	6,309‡	6,395	—	—
Glen Ellyn.....	4,343‡	3,976	—	—
Elmhurst.....	7,255‡	6,910	—	—
Downers Grove.....	6,443‡	5,105	—	—
Arlington Heights.....	1,602§	1,392	—	—
Wilmette.....	10,547§	8,492	—	—
Evanston.....	12,017§	11,219	—	—
Niles Center.....	1,821§	2,131	—	—
Des Plaines.....	5,949§	4,935	—	—
Elmwood Park.....	6,843§	4,350	—	—
Maywood.....	23,693§	20,060	—	—
Oak Park.....	15,492§	12,871	—	—
Berwyn.....	12,269§	10,281	—	—
Cicero.....	13,971§	11,977	—	—
La Grange.....	7,843§	8,538	—	—
Blue Island.....	4,278§	4,638	—	—
Midlothian.....	2,273§	1,269	—	—

* From assessors' records.

† From real property inventories.

‡ Unpublished data from Illinois Tax Commission, WPA Local Finance Survey.

§ From Herbert D. Simpson and John E. Burton, *The Valuation of Vacant Land in Suburban Areas* (Chicago: Institute for Economic Research, 1931), p. 14.

TABLE II. NUMBER OF RESIDENTIAL LOTS
REQUIRED PER 100 OF THE POPULATION

Cities	Estimated Residential Lots Needed	Population	Lots per 100 Pop- ulation
Independent:			
Racine.....	14,077	67,542	21
Kenosha.....	10,043	50,262	20
Waukegan.....	8,736	40,137	22
Elgin.....	7,955	36,243	22
Batavia.....	3,549	15,029	24
Aurora.....	11,242	44,694	25
Joliet.....	8,722	42,993	20
Harvey.....	15,130	49,581	31
Chicago Heights..	5,172	29,867	19
Kankakee.....	5,733	24,353	23
Hammond.....	22,488	132,642	17
Gary.....	16,363	101,602	16
Crown Point.....	1,033	4,046	26
Valparaiso.....	1,985	8,079	25
Michigan City.....	5,264	26,735	20
La Porte.....	3,756	15,755	24
Average.....	—	—	22.1
Suburban:			
Zion.....	1,476	6,652	22
Libertyville.....	1,085	4,792	23
Highland Park.....	5,841	27,665	21
Glen Ellyn.....	3,678	14,938	25
Elmhurst.....	6,492	20,876	31
Downers Grove..	4,723	19,130	25
Arlington Heights	1,278	5,652	22
Wilmette.....	7,760	36,619	21
Evanston.....	9,957	63,120	16
Niles Center.....	1,937	9,668	20
Des Plaines.....	4,559	18,759	24
Elmwood Park.....	4,008	17,145	23
Maywood.....	18,322	86,820	21
Oak Park.....	11,591	63,982	18
Berwyn.....	9,339	47,072	20
Cicero.....	10,645	66,602	16
La Grange.....	7,924	30,747	26
Blue Island.....	4,386	12,604	35
Midlothian.....	1,169	5,027	23
Average.....	—	—	22.7

largely explainable by the fact that this city has had a large population just outside its corporate limits.

^a As would be expected, the range of the ratios is slightly narrower for independent (16-31) than for

The Yardstick

These checks are sufficient to show the validity of the method of measurement chosen for this analysis. In view of the apparent reasonableness of the estimates arrived at by this method, it seems worth while to hazard a measure of residential land requirements in terms of population.

Table II presents the ratios of residential lots needed to population for the several urban areas in the Chicago region. The results show a considerable degree of uniformity, sufficient at least to warrant the positing of a ratio of 22 residential lots on the average per 100 of the population. Since the objective is the discovery only of a rule-of-thumb, this single average for both independent and suburban groups is probably sufficient. Both groups contain some cities with relatively high percentages of multi-family living as well as others in which it is the exception rather than the rule.^a But the individual group averages are so nearly identical that a single figure of 22 residential lots per 100 of the population will suffice.

This average is only an approximation. It cannot be relied upon except as a rough estimate of residential lot needs for a given area. The peculiar characteristics of the community must be taken into consideration in arriving at a final result. Nevertheless, the measure provides a convenient, ready-made yardstick for preliminary estimates and tests in the preparation of zoning ordinances, city plans, housing surveys, and the approval of subdivision plats. It is hoped that other students of this problem who have data available for other areas will check the accuracy of this estimate.

HELEN C. MONCHOW

Of the Journal staff

suburban cities (16-35), indicating less multi-family living in the latter.

The Validity of Race-Restriction Agreements

TWO recent cases involving restrictive agreements concerning the sale of real property to or its occupancy by certain racial groups present some interesting similarities and contrasts. In both cases, small areas in large cities—Chicago and St. Louis, respectively—sought by restrictive convenants

signed by the owners of a specified percentage of the front-footage of a given area, to prevent the sale or lease of real property in the community to members of the colored race. Both agreements were duly recorded (one in 1928 and the other in 1924), and were to run for 20 years from the date of recording.

The Illinois Case¹

"The decree of the Circuit Court is affirmed." With these words, the supreme court of Illinois on October 10, 1939 settled the legality of race restrictive agreements in that state and sustained the decree entered on August 19, 1938 in the circuit court of Cook County. That decree made permanent the temporary injunction prohibiting the leasing or sale to colored persons of property in a restricted area which was issued in the circuit court on July 8, 1937 in the case of *Lee v. Hansberry*. This order was affirmed by the appellate court on October 7, 1937.²

The decision of the Illinois supreme court is in effect an account of the stewardship of Mr. Charles A. Churan, the firm of Schuyler and Hennessey, and Mr. Angus Roy Shannon as attorneys for the Woodlawn Property Owners' League in defense of a restrictive agreement against negro ownership or occupancy in the Washington Park subdivision in Chicago. That subdivision is the area generally bounded by Cottage Grove Avenue, South Parkway, 60th, and 63rd Streets. Moreover, it settles an issue which has heretofore been regarded as highly controversial in Illinois.

The case had had a long history in the courts and was finally decided on technical grounds. In an earlier case involving the same restrictive agreement the appellate court had upheld a decision of the circuit court restraining a sale to negroes and declaring the conveyance void and the restrictive agreement valid.³ After that case had been decided it was found that the condition precedent (signatures of owners holding 95% of the restricted frontage) had not been fulfilled. In the case decided on October 10, 1939 the defendants were alleged to have violated the agreement by having conveyed their property to a negro. In their defense they claimed that because the owners of the required 95% of the frontage of the restricted area had not signed the agreement it was not valid and binding. However, according to the Illinois supreme court, the decision of the appellate court had made the question of the validity of the agreement

res judicata, and on this ground the court decided in favor of the appellees, upholding the execution and validity of the restrictive covenant.

The Missouri Case⁴

In this case the defendants had rented their property to negroes in violation of the agreement mentioned above, and the plaintiffs sought an injunction against negro occupancy. Here again the defendants claimed that the agreement was invalid for want of an adequate number of signatures and also claimed that enforcement would work undue hardship on them because the neighborhood has so changed as to make their property valueless unless rental to negroes is permitted. The trial court held for the defendants on the ground that the agreement was valid and binding against all signers except the defendants because they would be unduly injured by its enforcement, without corresponding benefit to other owners.

The appellate court affirmed the decision of the lower court but upon different grounds. This court was more concerned with the validity of the agreement as determined by fulfillment of the condition precedent—namely, signature by an adequate number of owners in the restricted area. It argued that failure of many owners to sign the agreement invalidated the neighborhood scheme proposed, and enforcement of the covenant against the defendants would not greatly benefit the other property owners. The agreement was further invalidated by lack of provision for its finality in the event all owners affected did not sign. Therefore, because of lack of validity of the agreement, not because of undue hardship to the defendants, the plaintiffs were denied injunctive relief.

Conclusion

Neither of the two decisions is a particularly clear-cut or forthright endorsement of the validity of racial restrictive agreements as such. Although it rests on legal technicalities, the Illinois decision comes closer to achieving that end. The Illinois decision is also probably the more important of the two because, up to this time, the question of race restrictive clauses has been a highly controversial one in Illinois, with the tendency of the courts to rule in favor of the agreements. In Missouri the courts have already gone on record in support of the

¹ *Lee v. Hansberry*, — Ill. — (1939). Docket No. 25116.)

² *Lee v. Hansberry*, 291 Ill. App. 517 (Oct. 7, 1937); see also *Plath v. deLaunty*, No. 39368 (not reported).

³ *Burke v. Kleiman*, 277 Ill. App. 519 (1935).

⁴ *Thornhill v. Herdt*, 130 S.W. (2d) 175 (1939).

validity of such agreements, both as to sale to and occupancy by colored persons.⁴

The decisions also have significance because they lend encouragement to further use of the device of restrictive agreements for the control of neighborhood areas. Neither of the agreements in question here was incorporated in the original plan of the subdivision scheme nor an integral part of instruments of conveyance; they were merely covenants entered into voluntarily by groups of property owners for the protection

of their neighborhood interests. Yet in neither of the cases under review did the court raise any question about this method of control as such. The potentialities of the device, therefore, not only for negative control by restriction as in the instant cases but also for positive control by establishment of neighborhood standards, should be explored by those seeking to promote the stability of real estate development and property values.

NEWTON C. FARR

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⁴ *Koehler v. Rowland*, 275 Mo. 573 (1918).

Land Resources Department

GEORGE S. WEHRWEIN, *Editor*

Some Economic Aspects of the Upland Watershed Lands of the Western United States

THE western states afford a unique illustration not only of the interdependence of land uses but also of the manner in which the profitable use of one resource is absolutely dependent on the proper management of another form of land. Snow surveys and hydrologic data show that approximately 200 million acres of high watershed lands yield most of the water so important to the irrigated agriculture of the 11 western states.¹ The huge watershed lands consist principally of those lying above 7,000 feet in elevation; these receive an annual precipitation frequently above 50 inches, largely in the form of snow, in contrast with the annual precipitation of 10 inches or less on much of the valley lands where irrigation is practiced. Were it not for the precipitation falling on the upland watersheds which becomes available as run-off or underground water, the valleys would still be sage brush and desert.

This water is impounded in reservoirs for irrigation and urban uses, and is also frequently taken into the irrigation canals directly from stream flow. Both of these types of use may be seriously disturbed by any conditions on the watershed lands which materially change and impair the water-yield function of these lands. A change in the density and type of plant cover may alter the time of the run-off, change the volume of the water yield, and influence the quantity of silt and detritus material that is carried into water-storage reservoirs and onto the irrigated farm lands.

The physical and ecological basis for the management of these lands for this high value function of water yield is now being developed by forest and range research. It is known that this watershed function of water production can be impaired, restored, and improved by the different types of use and management which the watershed lands

may receive. These watershed lands are principally forest and range lands that are largely in government ownership and, besides their watershed use, are useful for timber production, wildlife, recreation, and grazing.

Valuation of Watershed Lands

As irrigation developed in the western states, the cost of water to the users was represented by the cost of constructing irrigation structures and facilities. Any margin in the value of the water above this cost was capitalized into the value of the irrigated land or in the value of the water rights and shares in irrigation works. Whether this margin of value was capitalized into land values, or into water-right values, has depended upon the degree to which water could be diverted from one location to another, and upon the supply relationships between irrigable land and water.

One method of measuring the value of the water used for irrigation is to take the sum of the capital values of irrigated lands and of water shares in irrigation enterprises, and deduct from this value the cost of irrigation structures, the cost of raw land, and the cost of preparing the land for irrigation. The raw land cost has generally been a grazing land value of a few dollars an acre.

This procedure for measuring the value of the water gives a figure of approximately 2½ billion dollars (1930 Census data). This figure, on the basis of 1930 values, represents somewhere near the amount which an owner of this water could have realized through sale of the rights, if the owner were in an economic and a legal position to realize on the value of the water. This is equivalent to about \$12.50 an acre for the high watershed lands that yield most of the water used for irrigation. These calculations of water values and of watershed land values do not include the value of buildings and other fixed capital upon the irrigated lands.

If a watershed were to become so im-

¹ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

paired as to destroy its usefulness to irrigation, the entire capital value of the irrigated land and the improvements would be lost. This value might be called the "impairment value" or "protection value" of watershed lands, since it represents the potential loss that could accrue through changes in the watershed functions of volume, time, and quality of water yield. The investment in works to deliver the water to the land, the cost of preparing the land for irrigation, and the value of the land and buildings amount to a total of about 6 billion dollars for the irrigated farms of the 11 western states (1930 Census data). This "impairment value" of the estimated 200 million acres of high-water-yield watershed lands of these states is over \$30 an acre. In many localities values will greatly exceed this figure. These high, steep lands are frequently thought of as worth only a few cents to a few dollars an acre for timber production and grazing!

Values of Other Uses of Watershed Lands

If the water of the uplands is so vital to irrigation, why should not these 200 million acres be managed with but one objective—namely, to provide an ample supply for urban and domestic uses and for irrigation? However, certain uses tend to compete with watershed use, such as timber production and grazing of domestic and game animals. As a general rule, none of these uses need interfere with the water-yield functions of these lands and were they all under a single public ownership and this owner were not subjected to the pressure of other units of government or private groups, an ideal management program would not be difficult. In reality, the land is owned by the Federal Government, by states, and other units of government as well as private interests, and the governmental units are not free from pressure of private interests.

Timber harvesting and grazing may be so managed as to improve the value of a watershed, but without this management these uses may even cause destruction of useful watershed functions. In some places the best management of a watershed requires exclusion of all uses other than water production. On some of the upland areas no practical plan of range management can avoid the overuse of certain small tracts by livestock, and these tracts may develop into "sore spots" from the watershed management

standpoint. The harvesting of timber even under the best techniques of management may interfere with the watershed uses of some lands. In these situations an evaluation of the alternative uses is required.

Productive upland timber land under good management can produce an annual land rent of 30 cents an acre from timber production. This will support a capital value of \$6 an acre at a 5% interest rate. Good range land can produce an annual land rent of 20 cents an acre from livestock production. This will support a capital value of \$4 an acre at a 5% interest rate. The irrigated farm land values supported by the watershed generally impart an acre value to the watershed much in excess of these, and where other uses conflict with the watershed use there cannot as a rule be any doubt in the choice of alternatives. This conclusion is, of course, predicated upon public ownership of the important watershed lands, and upon public administration for the maximization of values. A private owner is not in a position to realize on the water value of high yield watershed land, and as a consequence may subordinate the watershed use to other uses regardless of inherent value relationships.

Watershed Values and Grazing Values

The maintenance of the 6 billion dollars capital values in the irrigated farms of the 11 western states is dependent, in large measure, upon the maintaining of the original water-yield characteristics of the upland watersheds. The 1930 Census data show the value of irrigated crops produced as approximately \$900,000,000. Contrasted with these values, the capital value supported by the cattle and sheep admitted for grazing on these lands was, in 1930, approximately \$400,000,000 (based upon a capital value for livestock and land of \$125 per head for the cattle and \$30 per head for the sheep admitted to the national forests), and the gross income from the livestock admitted to the national forests in 1930 is estimated at \$72,000,000. This estimated figure is based upon survey information which shows that in 1930 the gross income from range livestock averaged about \$25 per head for cattle and \$7 per ewe for sheep.

These data on capital values and income indicate that the ratio between grazing values and watershed values of the high watershed lands is about 1 to 15. There are

now some 265,000 irrigated farms in the 11 western states and there are approximately 25,000 permits for the grazing of livestock on the national forests located in these states. The number of grazing permittee farms and ranches would be somewhat less than this figure.

Summary

This analysis of capital values, income, and number of farm families that are dependent directly upon the watershed resource shows how extremely important it is that this resource be maintained in the

future. Potential damage to range-land and timber-land values through misuse and mismanagement is small in contrast to the potential damage from impairment of the value of watersheds.

The improvement and management of the western upland watershed lands will undoubtedly receive a great deal of attention in the next decade.

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County Zoning by Indirection

IN 1935, the State of Tennessee adopted a series of planning enabling acts¹ which provided all the planning powers that would normally be needed for a state and its subdivisions, except authority for county zoning. Chapter 33 of the Acts of 1935 appeared to provide county zoning powers in a model fashion, but it contained in Section 12 the following "joker" which sterilized the act:

"It is hereby provided that the provisions of this Act shall not apply to improvements, repairs, or constructions made and financed by private persons, firms, or corporations and/or with private capital. Provided nothing in this Act shall be construed to in any way control or interfere with the use by any person of his own property or the renting of same."

In 1937 a series of private acts authorized county zoning for five counties in north-eastern Tennessee;² and Chapter 460 of the Private Acts of 1939 authorized zoning in Hamilton County; but still there was no general act providing state-wide authorization for zoning in the unincorporated areas of Tennessee.

The trail of the story of the correction of this deficit leads back to Chapter 43 of the Public Acts of 1935, which authorizes the creation of a State Planning Commission and empowers it to establish regional planning commissions and to define their boundaries. The region may comprise a single county, a part of a county, or two or more

counties in whole or in part. The powers granted the Commission are essentially limited to the preparation of plans for development of the region. In 1939 a brief public act (Chapter 158) was passed which provided for the establishment of "community planning commissions" for unincorporated communities. On receipt of a petition signed by at least 100 freeholders or householders, the State Planning Commission is authorized to define and create a community planning commission for any unincorporated community. The area so defined may not exceed 10 square miles, and must contain a population of at least 500 inhabitants. On its face, the act appears merely to provide a somewhat more restricted and more difficult alternative method of defining a planning region disregarding existing political boundaries and establishing a planning commission. However, the value of the act lies not in the alternative method it provides but in the fact that it confers by reference upon the community planning commission so established all of the powers and duties of planning, zoning, and land-subdivision control which are conferred by previous Tennessee acts.

Thus, without once mentioning the word "zoning," the 1939 community planning act authorizes general county zoning in Tennessee for any unincorporated communities not exceeding 10 square miles in area and containing a population of at least

¹ *State Planning and Regional Planning*: Pub. Acts 1935, c. 43; *Regional Subdivision Control*: *Ibid.*, c. 35; *City Planning*: *Ibid.*, c. 34; *City Zoning*: *Ibid.*, c. 44; *City Subdivision Control*: *Ibid.*, c. 45.

² *County Zoning*: Priv. Acts 1937, c. 520 (Sullivan County); c. 901 (Washington County); c. 902 (Unicoi County); c. 903 (Carter County); c. 904 (Johnson County).

500 persons, which 100 freeholders or householders and the State Planning Commission agree to establish as a community planning region. For the purpose of enabling any community planning commission to carry out the duties and powers set forth in the municipal zoning enabling act, the term "chief legislative body," as used in that act, is broadened to include the regular county court of any county in which the territory of

a community planning commission lies.

Although the efficacy of the act has not yet been tested, since thus far no community planning commissions have been established under it, it appears to hold promise of usefulness.

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The Colorado Planning and Zoning Enabling Act

IN MARCH, 1939, Colorado passed an act authorizing planning and zoning of unincorporated territory.¹ This law permits planning and zoning in three forms—by individual counties, by a group of counties as a region, and by districts within counties. The purposes for which a plan can be made are broad and comprehensive, the general purpose being to guide and develop a coordinated, adjusted, and harmonious development of the county or region (§6). The purely rural aspects are given a place in planning such distribution of population "as will tend to reduce the wastes of physical, financial, or human resources which result from either excessive congestion or excessive scattering of population." Agriculture, recreation, forestry, and habitation are mentioned as land uses to be planned and among the purposes of zoning are "the classification of land uses," "protection of the tax base, securing economy in governmental expenditures, fostering the State's agricultural and other industries and the protection of both urban and non-urban development" (§14).

County Planning

Planning is carried out by a county planning commission of five members appointed by the board of county commissioners who comprise the regularly elected "legislature" of the county. The chairman of the board of county commissioners is the ex officio member of the planning commission; the other four are appointed from the legal residents who are property holders of the county. However, in counties with less than 15,000 people the board of county commissioners acts as the planning body. According to the

1930 Census, 47 out of the 63 counties fall in the second group. The planning commission may employ experts and a staff and use the assistance of any other officers—federal, state, county, or municipal—but in particular the State Planning Commission.

The county planning body is instructed to make a master plan for the entire unincorporated area of the county but may include incorporated areas also in order to make the plan unified and comprehensive.² The master plan is to include streets, parkways, public lands of all types, public utilities, land uses, including agricultural and forest areas. The plan or "blueprint" may be submitted as a complete plan or in parts as the plan progresses, "the parts corresponding generally with one or more of the functional subdivisions of the subject matter," to the board of county commissioners (§7).

Whenever the county planning commission has adopted a master plan for the county or any part thereof, then and thenceforth no road, park, or other public way, ground or space, no public building or structure, or no public utility (public or private) shall be constructed or authorized in the unincorporated territory until submitted to and approved by the county planning commission. This applies specifically to public grounds and institutions under county jurisdiction and may be overruled by a majority vote of the entire board of county commissioners³ (§§7, 8 and 9).

The above section is an attempt to get public agencies to locate roads and public structures in conformity with a master plan; another section (§22) requires private

planning commission.

³ Legal approval of the master plan by the board of county commissioners does not seem to be necessary.

¹ Colo. Sess. Laws 1939, c. 67.

² Incorporated areas legally make their own plans. They are free to accept or reject the plans of the county

subdividers of land in unincorporated areas to submit all plans for streets and plats or plots to the county planning commission for approval. It is unlawful for any public office to receive or record such plans or plats unless this approval has been obtained; in addition, the plans or plats must also be accepted by the board of county commissioners. Any one who tries to sell lots without approval of the planning commission and before the plat is filed or recorded in the office of the county recorder is subject to a penalty of \$100 for each lot or parcel sold or "negotiated to be sold." Attempted transfers by metes and bounds will not exempt such transfers from penalties and the county is also empowered to use injunction to stop all sales. This appears to be a real step in the direction of subdivision control.

County Zoning

So far the powers of the planning commission have dealt with controls not involving zoning. However, the commission may and upon order of the board of county commissioners *shall* draft a zoning plan for all or for part of the unincorporated area of the county. A prospective ordinance and map are submitted to the board of county commissioners who must hold a public hearing to receive suggestions and complaints before adopting the ordinance. Suggestions for changes and amendments must have the approval of the planning commission but the board has the final word on the ordinance and use districts (§§10, 11, 12, 15).

Section 10 enumerates the usual urban or suburban regulations, concerning height, bulk, and size of buildings, and ends with the "uses of land for trade, industry, recreation and other purposes." Agriculture and forestry are not mentioned here nor in Section 12 where the permitted regulations are again enumerated. The regulation of these two land uses is essential to *rural* zoning as we have come to call the northern Wisconsin type of zoning, but may be implied in the wording of Section 14, which also relates to zoning. They are distinctly mentioned, however, in Section 6, which relates to the purposes of planning *per se*.

Enforcement of the zoning ordinance is provided for in part through the requirement of a building permit to erect, construct, alter, or change any building in the area covered by zoning regulations. The building inspec-

tor is instructed not to issue any permit unless the plans of the applicant "conform to all zoning regulations then in effect" (§13). The withholding is mandatory but whether this method is to be used at all or whether a building inspector shall be employed is optional with the county. Unfortunately this leaves enforcement and checking of violations in a rather unsatisfactory status. No other method is suggested in the act for counties which do not choose to use the building permit method. Violations are deemed misdemeanors and are punishable by fines of not more than \$100 or imprisonment up to 10 days or both. The district attorney, or the board of commissioners, or any owner of real estate within the zoned district may institute injunction or similar action to "prevent, enjoin, abate or remove" the offending structure or land use. The county commissioners are also empowered to appropriate money for enforcement of zoning regulations (§§24; 26). These provisions are in advance of the enabling acts of some other states in providing machinery for enforcement and administration but fall short of being completely adequate. Part of the fault lies in the lack of adequate executive powers of county government in general as it exists in the United States.

All plans—"master or zoning"—must be submitted to the State Planning Commission whose findings are "advisory only," however (§21). The final step consists of filing the ordinance in the offices of the recorder and county clerk (§25).

Regional Planning

The Colorado enabling act has made provision for regional planning by permitting two or more counties to constitute a "region." This feature of the act is especially important to Denver. Unlike Madison, Wisconsin, which is located in the center of Dane County and has a part in the county's government, the city and county of Denver are coterminous, and control over land uses outside the city falls to counties with no legal relationship to Denver. Zoning the environs of Madison could be accomplished by a single county ordinance enacted by the board of supervisors of Dane County on which the city is represented.⁴ Planning and

⁴ See J. M. Albers, "Operation of the Dane County, Wisconsin, Zoning Plan," 15 *Journal of Land & Public Utility Economics* 358-9 (August, 1939).

zoning the environs of Denver will require the united action of three counties acting in cooperation with the city and county of Denver. The planning movement in the Denver region is well under way at this time.

The boards of commissioners of two or more counties or the governing bodies of municipalities, together with the boards of any counties in which the municipalities are located or which they adjoin, may cooperate in creating a regional planning board. The fact that municipalities may join with counties to plan unincorporated territory is significant. The number, qualifications, and term of the regional planning commission members are left to the cooperating bodies, the only restriction in the enabling act being that the majority of the members shall hold no other office except appointive membership on local planning, housing, or zoning commissions. The functions and duties of the regional planning commission are identical with those of county planning commissions.⁵ They are to make a master plan for the region, and public structures, etc., are to be located in conformity with the plan, except as overruled by the county board for a particular county.

However, zoning enactment and enforcement are left to each county. Nevertheless, the regional planning commission can perform "extra legal" tasks of holding "educational" meetings throughout the region to promote planning and zoning, coordinate activities of the counties, "match" the districts at the boundaries, and assist in the difficult job of enforcement and administration.

Zoning by Districts

A third feature of the act seems to have grown out of the desire to obtain immediate action in a restricted locality anxious to prevent misuse of land or incompatible land uses without waiting for county or regional action. Whenever 50 owners of real property petition for the creation of a district, the board of county commissioners is to determine the "sufficiency of such a petition,"

hold a public hearing, examine written protests, and after due consideration is empowered to "enter an order establishing the planning district, describing the boundaries thereof, giving the district an appropriate name and appointing the District Planning Commission" consisting of three property owners residing in the district. Unlike the procedure usually followed, no opportunity is granted to the residents to vote on the question of district formation; the decision is left entirely with the board of county commissioners.

The district planning commission is granted full powers to zone the district but the ordinance must be approved by the county planning commission if there is one in the county, otherwise merely "certified" to the county board. However, at this point the functions of the district cease; after "certification" the ordinance is administered for the district by county authority as if it were a county ordinance but, if the county has no board of adjustment, the district planning commission performs this function.

It is easy to see that district zoning ordinances may result in a patchwork of districts with widely differing ordinances intermingled with unrestricted, unincorporated territory into which the undesired uses and structures will be "dumped." It is true that the board of commissioners may turn down petitions for districts but this is purely negative. The board has the power to sanction districts "whether or not a County Planning Commission has been created," but if created, the commission's approval can be used to obtain uniformity and coordination. There is nothing to prevent districts being formed even if the county is under a county ordinance; in fact, this is anticipated by the provision that, where both county and district regulations apply, those with the higher standard shall prevail (§18).

Planners and land economists will watch this experiment with much interest.

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⁵ Sections 5 to 9 inclusive read, "county or regional."

Public Utilities Department

E. W. MOREHOUSE, *Editor*

The "Detroit Plan"

ON DECEMBER 17, 1935 the Detroit Common Council adopted the "Detroit Plan" for control and disposition of "excess" earnings of what was then the Detroit City Gas Company (now part of the recently organized Michigan Consolidated Gas Company), and six days later it was put into operation by a consent decree in the Wayne County circuit court. For about two years its uneventful use was uninterrupted, although there certainly was no realization of substantial customer dividends or markedly lower gas rates during that time. Beginning with a petition, late in 1937, of the Wayne County prosecutor for an investigation of Detroit gas rates by the Michigan Public Utilities Commission, there having been up to that time nothing but local regulation of these gas rates, the question of the legal status of the plan was finally carried to the Michigan Supreme Court. This court decided that the plan was invalid because it was not even a day-to-day franchise and that the city had the alternative of formulating a valid franchise with the company or of relinquishing control of gas rates to the Michigan Commission.¹ Until some government body undertakes control of Detroit gas rates, and an investigation of them is now in process before the Commission, the Detroit plan remains in effect. But it seems likely that the plan will soon be abolished and that no attempt will be made to replace it with a similar method of earnings control.

Like the similar but far more carefully constructed "Washington Plan," the Detroit plan developed out of approximately 15 years of controversy between the gas company and city officials.² Toward the end of this period of strife the prospect of lower gas rates by obtaining natural gas service and then, in this connection, realization of a contract between the Detroit City Gas Company and a subsidiary of Columbia Gas and Electric Corporation apparently turned the attention of the contestants to some

avowedly automatic means of controlling "excess" earnings.

Provisions of the Plan

"Base" earnings of \$3,850,000 per year are permitted the company as a return on property it possessed in December, 1935. To this figure is added 7% of the cost of net property additions, which are "used and useful in the natural and manufactured gas service," for the purpose of determining the base earning sum at any time after 1935. The net earnings of the company are determined before interest payments are deducted and after deductions have been made for depreciation and taxes.

This plan, however, does not specify, as does the Washington plan, any control of or means of determining annual depreciation charges. It is said simply that determination of the net earnings "shall be made in accordance with company's present accounting practice." A certified public accountant, who is selected by the company and city, will annually audit the company's accounts; the cost of such auditing will be treated as part of the company's operating expenses.

A part of the excess earnings above the base sum is to be given to the customers by means of refunds. Of the excess earnings, the first \$550,000 are to be divided equally between the company and domestic customers. If there are any additional excess earnings, $\frac{3}{4}$ of them will be distributed to domestic customers. Provision for dividing such earnings was made retroactive to April 8, 1935, the date on which the company without approval of city officials increased its rates. Such refunds to customers are to be made within three months after the end of a fiscal year. Except for the retention of some of the excess earnings by the company, no arrangement was established for effecting rate increases if the company's net earnings were not equal to the base earning. The base earnings are not guaranteed.

ous rate cases and in arranging for natural gas service.

² Cf. C. E. Troxel, "The 'Detroit Plan' of Gas Rate Control," 148 *American Gas Journal* 15 (April, 1938).

¹ *City of Detroit v. Mich. Pub. Util. Com.*, 288 Mich. 267 (Mar. 10, 1939). Some of the evidence and charges in this case concerned payments by the gas company to Frank Parrish and others for their "work" in previ-

Only domestic consumers are eligible for refunds, and of them only buyers of gas for cooking or hot-water heating, who live in one- or two-family dwellings, will receive these dividends. No customer may receive a refund for purchases in excess of 60 MCF of gas per year, and each consumer's refund will be determined by the proportion of his expenditure for 60 MCF or less per year to the total of such domestic consumer expenditures.

No provision was made for rates which were to be used during operation of the plan. Instead, it was agreed that the company would fix these rates not later than May 1, 1936; thus the company received the extraordinary right to fix the rates after the plan had been put into operation.³

It is agreed that the Wayne County circuit court will serve as a "forum" in settling controversies arising under the plan. On the application of either the city or the company this court is empowered to terminate or revise the consent decree.

Appraisal of the Plan⁴

From the point of view of Detroit gas-users the plan has been a disappointment. So much was promised and so little has been received. Only one consumer dividend, a refund being a temporary rate cut, has been paid by the company. A refund of \$205,383.81 was received late in 1937 by domestic customers, an average of 52 cents per customer. Having decided to accept the annual audit of the accountant regularly hired by the company, the city has not established any means of supervising the plan. Why refunds have not been larger or more frequent is not known by the writer, for even the company apparently has not attempted to explain this condition.⁵

Neither the provisions of the plan nor the

³ The absence of schedules of rates in the plan was one of the reasons given by the Michigan Supreme Court for concluding that the plan did not constitute a franchise. (*Supra*, n. 1).

⁴ No appraisal will be attempted here of sliding-scale franchises in general.

⁵ In the rate investigation now being undertaken by the Commission, the city is seeking a refund to customers of probably not less than \$1,500,000 and possibly as high as \$3,000,000.

⁶ Frank P. Fisher, "The Gas Rate Problem in Detroit, No. 2," *Report* given to the Common Council of the City of Detroit, Oct. 17, 1935.

⁷ At the time of adoption of the plan the reported

public comments of framers of the plan explain the way in which the base earning of \$3,850,000 for 1935 was determined. It has been emphatically denied, especially by Mr. Frank P. Fisher, a consulting engineer who was the principal city representative in the formation of the plan, that the base earning was determined by using some property-valuation figure.⁶ It is true that valuation studies were not made in connection with the establishment of this means of earnings control. Yet it was frequently said that \$3,850,000 was equal to a 7% return on a valuation of \$55,000,000.⁷ Moreover, additions to the base-earning figure are to be equal to 7% of the cost of net property additions. Despite these bits of presumptive evidence suggesting the use of some valuation figure, the plan simply says that the base earning should be large enough to assure "... the Company's financial stability and credit standing ... [and] to enable it to press vigorously the development of the new natural gas service."

Mr. Fisher proposed in a public statement about the plan that a fixed net-revenue sum per customer meter was an appropriate means of determining the base-earning sum. He suggested a figure of \$10 per meter for Detroit. Perhaps this was the way in which the figure of \$3,850,000 was obtained, for at the time of adoption of the plan the gas company had about 385,000 customer meters in use.⁸ This would be an extremely crude measure of the base-earning figure. The procedure takes no cognizance of variance in the proportion of large and small customers nor would it allow a higher return if the same customers with the same number of meters were to increase their use of gas service.

Several significant matters were omitted from the plan, possibly because the agreement was hastily formulated.⁹ There should

book value of the gas company's property, including working capital, was \$68,700,000.

⁸ Cf. John W. Smith, "Our Gas Company," 18 *Public Utilities Fortnightly* 83 (July 16, 1936).

⁹ There is no evidence that the terms of the plan had been thought of before September 23, 1935, although Councilman John W. Smith had expressed a desire a few weeks earlier for an agreement on minimum and maximum earnings of the company. Between September 23 and October 17, 1935 Fisher and the president of the gas company conferred and fixed all prevailing details of the agreement. Apparently, therefore, all provisions of the plan were conceived in the brief period of three weeks.

have been some specific control of the amount of the annual depreciation charge, even though no control of other operating expenses were effected. Yet the framers of the plan were content to rely on the "present accounting practice" of the company. Perhaps the company's depreciation allowances had been excessive. Or it was even possible, though there is no evidence that it was done, for the company to increase depreciation allowances so that consumer dividends would not have to be paid.

No method of controlling service standards was provided. Perhaps criticism for this omission should not be severe, for establishment of a system of penalties and rewards respecting quality of service may not be easy; even the more carefully conceived Washington plan has no provisions of this sort.

A serious deficiency was the grant to the company of the right to fix the rate schedules several months after the plan had gone into effect. Since the plan did not permit rate reductions as a way of eliminating future excess earnings, as does the Washington plan, the company obtained the right to fix rates in a manner that would permanently assure high excess returns. The important power of rate fixing was carelessly given to the company! If the city were displeased with rates fixed by the company, of course, it could obtain a hearing on the rates in the Wayne County circuit court, ask that the plan be cancelled, or not start any inquiry about the rate schedules; the latter was done.

The right of the company continually to receive excess returns under some rate schedule may be questioned. Unless these possible excesses are to be used as a "cushion" against the possibility of a deficiency in net earnings below the base figure, consumers may be paying higher rates than they would pay under the traditional form of public utility regulation.

Complaints from domestic consumers about the rates fixed by the company have been abundant. After the change-over to natural gas service was effected in the summer of 1936, the company announced its new rate schedules. For industrial customers there is an optional schedule with a minimum bill of \$120 a month and with charges graded from 48 to 26 cents for over 20,000 Detroit gas units. (A Detroit gas unit equals 530,000 B.T.U.'s.) The house-heating rate was reduced from a straight 55 cents to a straight 32 cents per D.G.U. And for domestic customers the rate was reduced (in

B.T.U. terms) to 75 cents for the first two D.G.U.'s and 55 cents for all additional D.G.U.'s.

The domestic customers have not objected so much to these rates, despite their expectation of lower rates with the entrance of natural gas service, as they have to the company's "minimum payment plan." Under this scheme the customer's minimum bill in a given month is computed at 83 cents per D.G.U. (the old rate) for the number of D.G.U.'s purchased in the same month of the year immediately preceding the advent of natural gas service. But the consumer is permitted some "free" gas because he measures total consumption for his minimum bill according to the new rates of 75 and 55 cents for D.G.U.'s. The company implied that the "temporary development period" for expanding natural gas sales (supposedly to justify the lower domestic rates) would be no longer than one year, but the minimum payment plan is still in force. In Detroit one hears little about the Detroit plan but frequent complaints are voiced about the rates which the plan allowed the company to set, and it is possible that the Commission will provide for alteration or even elimination of this "promotional" scheme. Not only was the Detroit gas unit, like therm rates, instituted to prevent a decline in gross revenue, but also the minimum payment plan may prevent realization of lower rates unless consumption is increased. The company really has two ways of preventing reductions in gross revenue.

Accomplishments and merits of the plan are few. But there was a significant gain in 1935 in a closure of the dawdling, sometimes stalemated, controversy over gas rates; at least further expenditures on rate litigation were not necessary. It may have been a means, moreover, of avoiding further delay of the advent of natural gas service.

Because it retains a portion of the excess earnings, the company may be more inclined to undertake technological changes and to seek better utilization of its equipment. Perhaps, too, this sort of plan could have been used more effectively with some supervision by city officials. Though the plan seems unquestionably to be a low-grade one for gas-rate control in Detroit, much could have been done with it to make its use seem more attractive.

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Public Utility Financing in the Third Quarter of 1939

PUBLIC utility security flotations during the third quarter of 1939 totaled approximately \$456 millions. This figure compares with \$435 millions during the second quarter of this year and with \$328 millions during the third quarter of 1938. More than 95% of the third quarter financing was accomplished before the war activities began in Europe.

Long-term bonds, excluding serial issues, totaled \$377 millions or 83% of the total amount offered. Serial obligations were unusually numerous this quarter, totaling \$32 millions or 7% of the total. Preferred stock issues make up the remaining 10% of the total.

Funds realized from the sale of new securities during the third quarter were used largely for refunding purposes rather than for new capital. According to a compilation prepared by the *Commercial and Financial Chronicle*, 93% of the total security flotations during the quarter were refunding in character. This percentage is somewhat smaller than those recorded in the first and second quarters of 1939.

Long-Term Debt Financing. The 27 issues in this classification totaled \$376,912,000. The issues offered publicly are summarized in Table I.

Issues sold privately, making up a little more than 1/3 of total volume, are listed as follows:

\$ 44,000,000	New York Power and Light Corp. 1st 3 3/4's of 1964 sold at 106.5 to yield 3.12%.
25,000,000	Bell Telephone Co. of Canada 1st 3 3/4's of 1964, sold at 102 to yield 3.13%.
22,582,000	New York Power and Light Corp. 1st 3 3/8's of 1969, sold at 104.6 to yield 3.13%.
16,000,000	Northern Natural Gas Co. 1st 3 3/4's of 1954, sold at 100 to yield 3.25%.
9,000,000	Birmingham Water Works Co. 1st 3 3/4's of 1964, sold at 104 to yield 3.26%.
5,250,000	Greenwich Water System, Inc. Collateral Trust 4's of 1959 (price and yield not available).
3,500,000	Lincoln Telephone and Telegraph Co. 1st 3 3/4's of 1969, sold at 103 1/4 to yield 3.08%.
2,800,000	Republic Natural Gas Co. 1st 3 3/8's of 1951, sold at 100 to yield 3.63%.
450,000	Litchfield Electric Light and Power Co. 1st 4's, of 1954, sold at 104 to yield 3.65%.
420,000	Connellsville Water Co. 1st 4's of 1964 (price and yield not available).
350,000	Western States Utilities Co. 1st 4 1/2's of 1959, sold at 100 to yield 4.50%.
125,000	West Virginia Water Service Co. 1st 4's

TABLE I. SUMMARY AND ANALYSIS OF LONG-TERM DEBT ISSUES OFFERED PUBLICLY, THIRD QUARTER, 1939*

Company and Issue (A)	Coupon Rate (B)	Principal Amount (C)	Maturity Date (D)	Month of Offering (E)	Offering Price (F)	Offering Yield (G)	Underwriters' Commissions (H)	Proceeds to Company (I)	Estimated Incidental Expenses (J)	Net Proceeds (K)	Cost to Company (L)
Calif. Water & Tel. Co. First Mortgage	%	\$ 5,650,000	1969	July	\$103.50	3.80	2.50	101.00	3.42†	97.58	4.14
Kansas Power & Light Co. First Mortgage	4	26,500,000	1969	July	108.50	3.54	2.00	106.50	.74	105.76	3.69
Kansas Power Co. First Mortgage A	4	5,000,000	1964	July	101.50	3.91	2.00	99.50	1.34	98.16	4.12
Southern Bell Tel. & Tel. Co. Debentures	3	25,000,000	1979	July	107.50	2.69	1.50	106.00	.39	105.61	2.77
Central Ohio Lt. & Pr. Co. First Mortgage C	4	4,100,000	1964	August	103.25	3.80	2.25	101.00	1.80	99.20	4.05
Iowa Public Service Co. First Mortgage	3 3/4	14,250,000	1969	August	101.00	3.69	2.00	99.00	.64	98.36	3.85
Central Power & Lt. Co. First Mortgage A	3 3/4	25,000,000	1969	August	101.00	3.69	2.00	99.00	.39†	98.61	3.84
Pennsylvania Pr. & Lt. Co. First Mortgage	3 3/4	95,000,000	1969	August	105.50	3.21	2.00	103.50	.40†	103.01	3.34
Debentures	4 1/2	28,500,000	1974	August	104.00	4.20	2.50	101.50	.40†	101.01	4.44
Oklahoma Natural Gas Co. First Mortgage B	3 3/4	17,000,000	1955	August	103.50	3.46	2.00	101.50	1.09	100.41	3.72
Upper Michigan Pr. & Lt. Co. First Mortgage A	4	1,050,000	1959	August	100.50	3.96	3.00	97.50	2.29	95.21	4.36
Weighted Average or Totals	3.71	\$247,050,000			\$104.81	3.44	2.03	102.78	.66	102.12	3.60

* Excludes \$125,000 issue of Bar Harbor Water Co., 1st 3 3/4's of 1964 sold at 103 3/4 to yield 3.05%.

† Pro-rata share of expenses.

	of 1961 (price and yield not available).
125,000	Northwestern Wisconsin Electric Co. 1st 5's of 1954, sold at 100 to yield 5%.
75,000	Newport Water Co. 4% 25-year bonds (price and yield not available).
60,000	Edison Sault Electric Co. 1st 4½'s of 1961, sold at 100 to yield 4.50%.

\$129,737,000

The weighted average yield on all issues sold privately, excluding those for which the selling prices were not available, was 3.17%. This compares with an average yield at the offering prices of issues sold publicly (Table I) of 3.44%. Were it possible to compute the net cost to the company of the issues sold privately, it would probably be found that the difference is even greater because of the probable savings in commissions and expenses made possible through private sale.

Long-term bond issues offered publicly are analyzed in Table I. The weighted average of the offering yields on these issues is somewhat lower than the reported yields of 3.58% and 3.56% in the first and second quarters of 1939, respectively. One of the issues offered during the current quarter, the Southern Bell Telephone and Telegraph Company 3% debentures, sold at a price to yield only 2.69%. This yield is one of the lowest ever offered on a long-term bond of a public utility company. The issue matures in 40 years, a longer term than has been customary in public utility bonds issued in recent years.

Underwriters' commissions continue to average about the same percentage of total par values as in other recent quarters. The net to the companies averaged 3.60% as compared with 3.73% in the preceding quarter. Net cost to the company of the Southern Bell Telephone and Telegraph debentures was only 2.77%.

Other Utility Financing. An unusually large number of serial issues were offered during the three-months' period. These issues are predominantly short-term in character and, in keeping with the present low level of short-term interest rates, usually sell on a low yield basis.

Serial maturities offered during the third quarter are listed as follows:

\$ 9,700,000	Arkansas-Louisiana Gas Co. 1st Mtge. 3½'s, due 1945-54, sold privately during September at par to yield 3.50%.
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7,000,000	Central Power and Light Co. 1½% to 3% Serial Debentures due 1940-44, sold at various prices to yield 1.25% to 3.15%.
3,500,000	Kansas Power and Light Co. 2¾% Serial Notes due 1940-49, sold to 3 banks (price not available).
3,300,000	Arkansas-Louisiana Gas Co. 1st Mtge. 2¾'s, due 1940-44, sold privately during September at par to yield 2.75%.
3,200,000	West Penn Power Co. 1½% to 3¾% Serial Notes due 1940-49, sold to 5 banks (prices not available).
2,800,000	Republic Natural Gas Co. 1st 2¾'s due 1940-46, sold privately (price not available).
1,460,000	Detroit Street Railway 2½% Equipment Trust Certificates, due 1940-43, sold at prices to yield .75% to 1.75%.
500,000	Central Ohio Light and Power Co. 3¾% Serial Notes due 1940-44, sold at 101.02.
350,000	Kansas Public Service Co. 1st Mtge. Serial 4's due 1941-60, sold at 100 to yield 4%.

\$31,810,000

Another important source of public utility funds in recent quarters has been the issuance of preferred stock. This trend indicates that the public is becoming more interested in buying good preferred stock issues on a comparatively low yield basis. Most preferred stock issues, like the bond issues, are for refunding purposes.

Preferred stock issues in the third quarter are listed as follows:

\$29,707,700	West Penn Power Co. 4½% Cum. Pfd. par \$100, price \$110, yield 4.19%.
5,800,000	Oklahoma Natural Gas Co. \$5.50 Prior Convertible Pfd., no par, price \$104, yield 5.29%.
4,648,000	Wisconsin Gas and Electric Co. Cum. Pfd. 4½% par \$100, price \$110, yield 4.09%.
4,500,000	San Antonio Public Service Co. Cum. Pfd. 6% \$100 par, price \$104, yield 5.77%.
2,500,000	Peninsular Telephone Co. \$1.40 Cum. Pfd., \$25 par, price \$27.50, yield 5.09%.
198,000	Central Ohio Light and Power Co. \$6.00 Cum. Pfd., no par, price \$90, yield 6.67%.

\$47,353,700

Effect of War on New Financing. Although it is too early to draw any definite conclusions as to what effect the European con-

dict will have upon public utility financing, certain facts of apparently far-reaching importance can be pointed out. The only public offering of a long-term public utility bond to appear in September was a small water company issue amounting to only \$150,000. Financing through private sales of long-term bonds held up much better, such sales totaling more than \$19,000,000. Nevertheless, a severe decline has occurred in the number of issues offered for sale since war broke out. This has been true in spite of the fact that a number of companies have filed preliminary statements with the SEC describing prospective issues.

A partial list of some of these prospective bond issues originally intended for September offering is given below:

\$ 45,000,000	Northern Indiana Public Service Co., 1st Mtge. 3-3¼'s of 1969
40,000,000	Public Service Co. of Colorado, 1st Mtge. 3½'s of 1964.
38,000,000	Public Service Co. of Indiana, 1st Mtge. 3¾'s of 1969
12,000,000	Public Service Co. of Colorado, Debenture 4's of 1940
10,000,000	Public Service Co. of Indiana, Serial Debentures of 1940-49
7,750,000	Marion Reserve Power Co., 1st Mtge. 3½'s of 1959
6,700,000	Northwestern Electric Co., 1st Mtge. 4's of 1969
2,800,000	Northwestern Electric Co., Debenture 4½'s of 1959
998,000	Public Service Co. of North Carolina, 1st Mtge. 5's of 1952

\$163,248,000

It seems reasonable to assume that at least part of the above issues have been delayed because of the uncertainties occasioned by the war.

Prices of high grade bonds dropped sharply in the last week of August and the first week of September. Yields were greater as a result of the lower bond market prices, thus foreshadowing increased costs of capital to prospective issuers. Moody's 120-bond

yield index increased from 3.65% on August 19, 1934 to 3.94% on September 16, 1939, reflecting about an 8% drop in bond prices. The effect of the war is partially responsible for the trend in prices of several issues offered in August, 1939 and compared in Table II.

TABLE II. COMPARISON OF OFFERING PRICES OF SELECTED LONG-TERM PUBLIC UTILITY BONDS OFFERED IN AUGUST, 1939 WITH THE MARKET PRICE ON OR ABOUT OCTOBER 6, 1939

Issue	Offering Price in August	Yield	Market Price October 6	Yield
Central Pr. & Lt. 3¾'s '69	101.00	3.69%	92.50*	4.16%
Iowa Pub. Serv. 3¾'s '69	101.00	3.69	95.75*	3.99
Penn. Pr. & Lt. 3½'s '69	105.50	3.21	102.19†	3.38
Okla. Nat. Gas 4½'s '74	104.00	4.20	102.82†	4.34
3¾'s '55	103.50	3.46	103.50*	3.46

* Average of bid and asked price, October 6, 1939.

† Average of low and high for week ending October 6.

This table illustrates the decline in market values of August issues and the subsequent increase in yields. Whether or not this decline is temporary remains to be seen. The extended list of companies with new financing pending at this date seems to indicate that the managements of these companies expect a more favorable time for financing operations in the near future than at present. It is noteworthy that bond prices have not changed much in the last three weeks of September; the September 30, 1939 average yield for 120 bonds as reported by Moody's was 3.97% as compared with 3.95% on September 9, 1939.

W. H. EVANS
R. G. DUDLEY

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Book Review Department

Urban Land

Fisher, Ernest M. and Others. *HOME MORTGAGE LENDING*. New York: American Institute of Banking, 1938. pp. 368. \$3.00.

Home Mortgage Lending is a text prepared for use by the American Institute of Banking classes. The book is intended primarily for study by commercial bank employees and therefore treats the subject from the point of view of the commercial bank. The scope of the book includes a short survey of the economic and social importance of the home-mortgage business, an outline of the legal aspects of mortgages, a short discussion of the place of home-mortgage investments in the portfolios of commercial banks, an exposition of residential appraisal theories, and several chapters on the organization and administration of a bank's mortgage lending department.

Much of the material in the book is excellent and the text is well organized for teaching purposes, being set up in chapters of appropriate length for class sessions. Both students and instructors are assisted by a topical summary and by questions and problems at the close of each chapter. The text is worth study by anyone engaged in home-mortgage lending, particularly by bank employees without a background in real estate law and residential evaluations.

The authors have, however, permitted their enthusiasm for the insured mortgage system of the Federal Housing Administration to detract from the academic approach customary in a text of this type. The insured mortgage system is suggested by the authors as the solution to practically all problems in the home-mortgage business. For example, on page 22, the statement is made: "... the quality of a mortgage may be known without inspecting either the instrument or the collateral." And, again, on page 84: "It is no longer absolutely necessary for the lender of mortgage money to have a personal acquaintance with the property or credit risk of the mortgagor before making a mortgage loan." This attitude on the part of the authors encourages bank officers and employees to relinquish their institutional responsibility for the making of good mortgage

loans and instead to place all or most of that responsibility upon an instrumentality of the government. If carried to its logical conclusion in all forms of lending, this policy would lead to the complete socialization of banking. The text would be improved if more emphasis were placed on the fact that the solution to many of the risk problems inherent in home-mortgage lending is still in the future.

FRED T. GREENE

Monchow, Helen C. *SEVENTY YEARS OF REAL ESTATE SUBDIVIDING IN THE REGION OF CHICAGO*. Chicago and Evanston: Northwestern University, 1939. pp. viii, 193. (Northwestern University Studies in the Social Sciences, No. 3.)

To any one who has ever dived for facts in that vague no-man's-land lying between the congested centers of great metropolitan regions and the rural back country, this book will come as a revelation. Its very existence stands as a tribute to the author's capacity for taking pains; to her patience, industry, and ingenuity; and to her manifest desire to guard against misleading herself or her readers.

Like the pioneering studies of the rate at which lands are subdivided for urban use—like those, for example, by Ernest M. Fisher and Herbert D. Simpson and their associates which appeared between 1928 and 1932—this volume is founded on two basic series of facts: data on population, and on the numbers of lots in subdivisions recorded annually. For the latter series, the author obtained access to the data compiled by the Chicago Regional Planning Association for the period from 1871 (the year of the Chicago fire) to 1930. The material covers, township by township, the 15 counties of Illinois, Indiana, and Wisconsin, which lie within a radius of 50 miles of the Chicago Loop. The resultant scope of the study is alone sufficient to excite the reader's imagination.

After a terse and illuminating introductory chapter, the author proceeds to a comparison of the two basic series. For this purpose, she divides the region into 36

areas. As nearly as the data on population and lots will permit, each of these areas covers an economic unit centered on an independent or suburban city. Her next attack is on the problem of how many of the lots in existence in the several portions of the region, at the end of each decade, were actually needed. In the absence of precise data on the number of lots actually in use at any given time, she is forced to devise a rule-of-thumb for the measure of need. She points out frankly the shortcomings of her rule, and then compares in tabular form the estimates based on it with the small number of cases for which more precise data are available. Because of this critical attitude toward her own work, a captious reviewer would find himself forestalled in chapter after chapter by her own detached analysis of the methods she was forced by circumstances to adopt.

In a fourth chapter, trends in the rate of subdividing are compared with those of a number of authoritative and generally accepted indices of general and special business conditions—for example, those of volume of production, building construction, rent levels, numbers of shares traded in on stock exchanges, real earnings, purchasing power, bank loans and discounts, etc. Here again the author's capacity for patient and detached analysis becomes evident.

The fifth chapter is a most enlightening discussion of the relation of manufacturing and transportation to subdividing activity. It traces in detail for a number of the economic units already described the effect of the projection or construction of new rail lines or manufacturing plants on the rate of subdivision. The facts presented are of interest not only to those primarily concerned with problems of orderly land use. The sections dealing with bonuses granted by local governments to rail and factory promoters might well be made required reading in courses on principles of investment. The topic is timely because of the re-emergence of the bonus idea for the purpose of stimulating industry in southern cities, and the attendant flood of municipal bonds.

In the succeeding chapter, the author breaks new ground. The discussion centers around the institutions which affect the sale of subdivision lots. Beginning with real estate corporations of several types, the formation of which was prohibited shortly

after the beginning of the period covered by the study, the author traces the forms, the practices, and the procedures of the syndicates, land associations, and real estate trusts which emerged as substitutes. She describes and evaluates the effects of devices such as land contracts, auctions, and options in the stimulation of sales volume; and of other devices for extending credit to purchasers. It is to be hoped that the chapter will set a pattern for comparable studies in other states.

The final chapter embodies the author's analysis of many of the great variety of statutory and procedural methods now in use or suggested for the control of subdivision. In a field in which legal theory is still poorly defined, in which administrative procedures are only beginning to develop, and in which opinions concerning actual accomplishments still outnumber available facts, only a reviewer gifted with powers of clairvoyance would be capable of evaluating the author's proposals for establishing control. Among these, certificates of convenience and necessity are given a place of greater importance than this reviewer would assign them.

In any event, Miss Monchow has added greatly to our understanding of the nature of the problem. Her book is a distinct contribution to our knowledge of the character and extent of the waste of natural resources, and of the individual losses involved in the uncontrolled subdivision of land.

PHILIP H. CORNICK

*Institute of Public
Administration*

Perry, Clarence Arthur. *HOUSING FOR THE MACHINE AGE*. New York: Russell Sage Foundation, 1939. pp. 261. \$2.50.

This book is a plea for an urban land policy which will lend public assistance in the provision of sites for mass-production housing by large corporations, and which will provide a tool by which cities may make more effective their land-use planning and housing control. Mr. Perry develops his Neighborhood Unit principle (which is effectively restated) into the basis for such policy, and recommends legal and administrative procedures which may be used by municipal planning and housing agencies.

Specific attention is given to two applications of the principle—the production of

new neighborhoods on the suburban fringe and the redevelopment of interior slum and abandoned areas for higher income housing at increased population density. In the former instance the author recommends that the municipality designate vacant land ready for development, plan a neighborhood unit on it, reshuffle ownerships in accordance with the plan, zone it, and place on it necessary deed restrictions. In the latter he proposes municipal designation of a redevelopment area, prohibition under police power of building in the proposed area, selection of a large scale construction corporation for development work, condemnation of the site by the city in accordance with a revised official map of the area, transfer of the site to the development corporation, and subsequent transfer to a large management corporation.

The book apparently is not intended as a treatise on housing. There are presented summaries of the possible application of mass production to housing, the necessity for large producing and managing corporations, present trends in prefabrication of houses, and a discussion justifying the use of eminent domain for establishment of neighborhood units. There is little reference to effective consumer demand in large scale housing production. This reviewer, for one, is thankful that Mr. Perry omits the widows and orphans, tuberculosis and infant mortality, and the differential between municipal income and expense in slum areas. However, it would be interesting to see presented the relation of Mr. Perry's principle to the population as a whole. How large is the group who can afford to live in our reclaimed interior areas at higher densities and the necessarily high rents? Should we stabilize fictitious, or at least speculative, land values in these districts by the methods outlined? And, after all, is slum clearance, without positive action to improve the situation of the former residents, a justifiable public purpose? If such collateral problems can be solved, Mr. Perry has made an important contribution to housing and planning technique. The book is recommended reading for housers, planners, and specialists in the economic (or uneconomic) use of land.

ROBERT B. MITCHELL

The University of Chicago

Hoyt, Homer and Badgley, L. Durward. *THE HOUSING DEMAND OF WORKERS IN MANHATTAN. Report to the Federal Housing Administration, 1939. pp. ix, 172.*

This investigation of the housing demand of workers in Manhattan reaches beyond the scope of a practical assignment for the Federal Housing Administration and contributes a significant analysis of the functional heart of the largest urban agglomeration in the Western Hemisphere. A short orientational chapter, abundantly documented with charts, graphs, and maps, reviews the economic background of New York City and forecasts a diminution in city growth based on recorded declines in: the stream of foreign commerce from a war-time peak of approximately six billion dollars to a pre-war level of two billion dollars; the volume of immigration from an annual net of over a million during the first decade of this century to an actual deficit in 1932; the flow of capital into new commercial and industrial enterprises attendant upon the depression aftermath of the World War; the importance of local manufacturing which has shown little increase since 1910; and the influx of travelers and tourists reflecting a lower national income.

Following this is a close analysis of the land-use structure of the Lower East Side of the city. The gradual uptown migration of high grade residential areas is traced, as well as similar movements for the retail shopping center, the wholesale centers, the amusement area, an important part of the general office center, and the garment industry. Present conditions within the blighted Lower East Side are shown by a comparative per-room rental analysis based on 1934 real property inventory data by census tracts for three selected areas in Manhattan, three in Brooklyn, and one each in Queens and the Bronx, indicating an average \$3.00 to \$5.00 per-room rental for the Lower East Side of from $\frac{1}{3}$ to $\frac{1}{4}$ that of the other areas, coupled with a high proportion of vacant property and resulting in uneconomic private real estate operations, a burden of tax delinquency, and numerous demolitions.

The scope of the remainder of the study is confined to the practical problem of evaluating the market for approximately 20,000 new apartment dwelling units in the Lower East Side. This phase of the analysis treats of the number of eligible tenant pros-

pects for such housing, and in so doing evaluates: the number, income classes, family structure, and present residence of Manhattan workers; the character of the apartment areas that compete with the Lower East Side, indicating the many more desirable features of the other higher grade residential areas; and finally the demand for new apartment units in New York City in the light of declining population growth.

Final conclusions are unfavorable for large scale new apartment developments in the Lower East Side but, apart from this immediate administrative question, several pieces of evidence contributing to this conclusion have general interest for urban specialists. These are: a cartogram showing the "percent distribution of income earners working in Manhattan by area of residence, 1938"; two maps showing the pendular movement of "persons working in Manhattan south (and north) of 14th Street by areas of residence, November, 1938"; and a map showing the "assessed valuations of land in selected apartment-building locations in New York City, and northern New Jersey, 1938."

MALCOLM J. PROUDFOOT

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Commerce*

Land Resources

Bowman, Isaiah, editor. *LIMITS OF LAND SETTLEMENT. New York: Council on Foreign Relations, 1937. pp. vii, 380. \$3.50.*

This book by 10 different authors critically examines the prospects of settlement and population in Canada, Siberia, China, Japan, Australia, Africa, and South America. The prospect for redistribution of population, the mainsprings of Asiatic migration, and the relation of food supply to the migration process are three additional chapters. Their conclusions can well be stated in the words taken from Dr. Bowman's "Introduction." "New land will accommodate too slow and small a stream of population to be of real social importance to the countries of origin. In our present nationalized world, in which the best lands have been occupied, and restrictive measures are in force, migration is no answer to economic and social strain induced by so-called overpopulation. Nor is military conquest either a practical or rational answer. The struggle for addi-

tional territory as a step in empire building can be understood; the hope that it will furnish an offset to a high birth rate is based upon an illusion." The book is a thought-provoking and illuminating contribution toward an understanding of the present world crisis.

GEORGE S. WEHRWEIN

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University of Wisconsin*

Public Utilities

Barnes, Irston R. *CASES ON PUBLIC UTILITY REGULATION. New York: F. S. Crofts & Co., 1938. pp. xx, 984. \$7.00.*

Professor Barnes has provided a useful aid to the teacher of courses in public utilities, in assembling extracts from leading court and commission cases between the covers of one volume. For the teacher using the case method, this volume will serve as a text; with other methods of teaching it will supplement a text. A list of questions and additional references at the end of each chapter add to its utility for these purposes. The best feature of the book is the series of chapter introductions in which Professor Barnes sketches in discerning fashion the important features of the chapter's subject. By themselves these introductions furnish an outline of most of the more important aspects of the entire field.

Nearly all the leading court cases affecting utilities are represented, and many of the leading commission cases. The Des Moines Gas case is noticeably absent; likewise, the St. Louis and O'Fallon case. In some instances the classification of cases is questionable, but cross-referencing helps. It is noted that the Galveston Electric case is not mentioned in the Rate of Return chapter. With certain commission cases, it would have been interesting and instructive to note subsequent history of the case or its subject. This treatment might have been used profitably with the Northern States Power Co. securities case at page 719. Incidentally, Professor Barnes failed to note the indecisive, but different, opinion of the Wisconsin Supreme Court in *Wisconsin Hydro-Electric Co. v. Railroad Commission*, 208 Wis. 359, 243 N.W. 322, after reconsideration of the opinion quoted at page 699.

In the chapter on Critical Appraisal of Rate Regulation, it would have been helpful if he had abstracted certain portions of re-

ports of investigating committees, such as those in the federal field or in New York, Massachusetts, Pennsylvania, or Utah.

The reviewer believes that depreciation is sufficiently important to rate a separate chapter, rather than merely a section. There is ample material on all sides of this problem.

A case book unavoidably may give the uninitiated a somewhat warped impression of regulatory work. The cases emphasize controversy and litigation. But not all regulatory efforts are of this character. Only a small fraction of commission decisions go to court and in some commissions only a small proportion of rate adjustments result from formal proceedings. Some of the most effective work of commissions is unseen by the public generally, is not publicized, and is not reflected in cases that can be quoted in a volume such as this. Though a case book can not portray these aspects of commission work, a teacher using such a book can if he chooses.

E. W. MOREHOUSE

Chief, Rates and Research

Department,

Public Service Commission of Wisconsin

Ruggles, C. O. *PROBLEMS IN PUBLIC UTILITY ECONOMICS AND MANAGEMENT.* New York: McGraw-Hill Book Co., Inc., 1938. pp. xvi, 772. \$6.00.

This book is the latest revision of a similar problems text, entitled *Problems in Public Utility Management*, issued in 1927 by Philip Cabot and Deane W. Malott of the Harvard University Graduate School of Business Administration. The new edition has about 120 problems and cases divided into seven major classifications, or sections as follows: I. Economic Characteristics of Public Utilities; II. Production Problems of Public Utilities; III. Management, Organization, and Finance; IV. Wholesale Marketing of Public Utility Service; V. Retail Marketing of Public Utility Service; VI. Valuation, Rate Making, and Fair Return; and VII. Regulation and Management.

In the preface the author states that the historical material in Section I has been somewhat condensed to give more emphasis to the other sections which have recently assumed new significance. Section I deals with the development of the public utility concept with particular reference to the attitude of the consuming public, the legisla-

tures, and the courts during periods of economic stress. It begins with the well known case of *Munn v. Illinois* and traces the interpretations which clothe certain businesses with a degree of "public interest" justifying regulation and control. It is rather difficult to understand why the author desired to condense this part of the book in the light of the important changes which have taken place during the great depression of the past 10 years. Regulatory authority of the United States Government and the state governments has been deepened and extended. Still more important, the Federal and other governments have entered directly into economic activities through proprietary corporations justified on the basis of a super public interest. At the time of the *Munn* case, and subsequently, the general welfare clauses have been expanded and the right of private property and contract restricted by declaring certain enterprises to be quasi-public, whereas the recent tendency has increasingly been to go the whole way and eliminate the right of private property. As examples in the regulatory field may be mentioned such agencies as the NRA, the SEC, the FCC; and in the proprietary field, the TVA, the Housing Authority, and the various finance corporations are epoch making.

Certainly a problems book purporting to cover "public" utilities should include the legal and economic theory upon which the proprietary functions of government have been so drastically expanded. It should by all means raise the question whether, in the last analysis, the general welfare will be better promoted by this procedure, or by a laissez-faire attitude which fosters the acquisitive instinct and gives private initiative and concomitant incentives freer play. Undoubtedly the student of public utilities should be informed upon these outstanding contemporary conditions and their probable implications. In the light of events, this part of the book might well have been expanded instead of condensed.

In this same connection a further criticism may be offered in that this text practically omits any reference to water utilities and their problems. In this class of business, again, the transition from private to quasi-public, to governmental ownership, has taken place in many locations. Students of public utilities should be acquainted with the important questions involved in water

rights as well as those of construction, service, rates, finance, etc., encountered in producing, distributing and marketing this essential commodity. On the other hand, it is apparent that the electrical industry has been overemphasized.

A perusal of the various problems and cases discloses admirable organization and presentation of the subject matter. A few minor criticisms may be offered at random.

In the section on "Production Problems of Public Utilities (1) Reliance upon Competition between Utilities," the Capital Traction Company problem (pp. 48-53) at the close leaves the reader wondering what return was earned after consolidation of the two railway companies and later the bus company, especially since the introduction to this problem stresses the annual low return of the competing companies, and the refusal of the District of Columbia Public Utilities Commission to grant an increase in rates on the grounds of unnecessary losses of duplication. Some evidence should be given, or the student should be required to seek it, proving that the consolidation did produce expected economies.

The significance of the diversity and load factor is shown in the steam and electric problem at pp. 77-84, but the statement is made in technical engineering terminology without any interpretation into performance units and monetary units in which the student of economics is ultimately interested.

In the section on "Regulation Involving Coordination of Services of Competing Utilities" featuring the Southern California Telephone Company's problem with the private system of the City of Los Angeles (pp. 685-9), the author closes the problem with this question, "Do you agree with the decision of the California Commission?" It is a very general question and may be answered by a general affirmative or negative statement. To guard against such an unsatisfactory answer the question should require the student to give all the specific reasons he can muster to support his position.

Generally speaking, the problems book under review is excellent collateral reading for the student, and the supplementary questions require him to digest the cases and apply the knowledge gained from lectures and text. For the advanced student this book is a good introduction for a broader reading schedule to enlarge his scope and

understanding of the utility field. No amount of book learning, however, can be a substitute for actual experience in a utility plant. The reviewer, therefore, urges that those responsible for higher and specialized instruction in this activity should require their students to gain experience by actual work in these enterprises. When the students later enter their chosen field, those with such a background will not feel like strangers in a strange land as so many of them do when employed.

GEORGE J. EBERLE
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Commercial Survey Engineer,
Associated Telephone Co., Ltd.*

Public Finance

ATLAS OF TAXING UNITS: SURVEY OF LOCAL FINANCE IN ILLINOIS. Vol. I. *Chicago: Illinois Tax Commission, in cooperation with Works Progress Administration, 1939. pp. 139.* (Distributed by Illinois Tax Commission.)

This large and impressive volume, with its wealth of tables and maps, presents a picture of local government areas in Illinois such as no other state can show in published form. Attention is centered upon those local units that have power to levy a property tax, leaving out such as rely on special assessments and other sources of revenue. Even so, Illinois has 15,100 such taxing units to report. A summary table of these is presented, as well as a comparable table of taxing units in the other 47 states, with Illinois numerically far in the lead.

The early pages of the report present an account of the development of local units in Illinois. Each type of unit is traced from its origins through major changes, alterations in areas, and increases in numbers, down to date. Various tables and maps both illustrate and substantiate the points that are made. Complications not found in all states, such as elementary and high-school districts covering the same area, are revealed. The importance of the different types of units from the point of view of population served is also shown.

The text of the report closes with a discussion of the legal organization and bases of Illinois taxing units. At this point the corporate status and general range of powers of different types of units are described.

The relationship of units where they cover the same area, the tendency of some units to cut across even county lines, the existence of districts composed of several non-contiguous areas, and a variety of other interesting facts that reveal almost chaotic conditions are also brought to light. On page 23 there is a most illuminating series of profile maps of Lake County, showing the different series of taxing districts and their tax rates separately, with one culminating profile where all are piled one on top of the other. The latter looks a bit like an aerial photograph of a downtown jungle of skyscrapers where high peaks contrast with deep canyons.

All told, the text covers only 30 pages, but since there are three wide columns to a page, and each 14 inches high, the discussion is really thorough. The work closes with 109 pages of county maps, including seven different maps of Cook County alone. On these maps are shown for every Illinois county all the local taxing units—townships, cities, villages, school districts, etc., as well as section lines, school buildings, and other facts important to local government.

Except that personal names and land tenures are omitted, this is a veritable Domesday Book for local government in Illinois. It is excellent in conception and, considering the inherent difficulties in recruiting, training, and supervising a statewide staff of workers under WPA rules, excellent also in performance. Other states that wish to know the facts about local areas and taxes might well emulate this study.

WILLIAM ANDERSON

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University of Minnesota*

GROVES, Harold M. *FINANCING GOVERNMENT*. New York: Henry Holt & Co., 1939. pp. xvi, 777. \$5.00.

Here is a very solid, but very live and realistic treatment of the whole field of public finance in the United States. It is written primarily from the point of view of "meeting the needs of students," with the limitations which that point of view imposes. But the author carries the limitations with obvious ease, like a horse that can work equally well in either single- or double-

harness, and plows to the end of the furrow just the same.

The organization involves some departure, in placing the entire treatment of taxation and revenue first, to be followed by the treatment of public expenditures, public borrowing, and fiscal administration. To the reviewer this is a welcome relief from being confronted at the outset with the old axiom that governments differ from individuals, in doing their spending first and finding the wherewithal afterwards—which Professor Groves holds is only "superficially true, if at all, and unimportant if true." We are inclined to think the change in order of treatment will enhance the initial impact of the subject on students, which, from the standpoint of teaching strategy, is highly important.

The subject matter is a delightful combination of concrete descriptive material and solid philosophical discussion, with Professor Groves' characteristic emphasis on the institutional aspects of taxation and governmental activities throughout the whole treatment. The chapter on the Taxing Power, for example, is a clarifying contribution. It is not quite as difficult now as it once was to make taxation interesting, but the author has managed to impart an unusually interesting quality to what he has to say; so much so, that one can open the volume at random almost anywhere and find something interesting going on.

If the reviewer were to offer any critical comment, it would be upon the relatively small proportions allotted to the discussion of public expenditure and public debt. The section on public revenue embraces approximately 500 pages; that on public expenditure 140 pages; that on public debt 56 pages. In view of modern trends and developments many of us would have liked to have a fuller discussion and analysis of the problems of expenditure and public borrowing. But this is the author's business, not the reviewer's; and in this case we are willing to concede that the richness of the treatment of the whole field of taxation is all that is necessary to vindicate the allotment.

HERBERT D. SIMPSON

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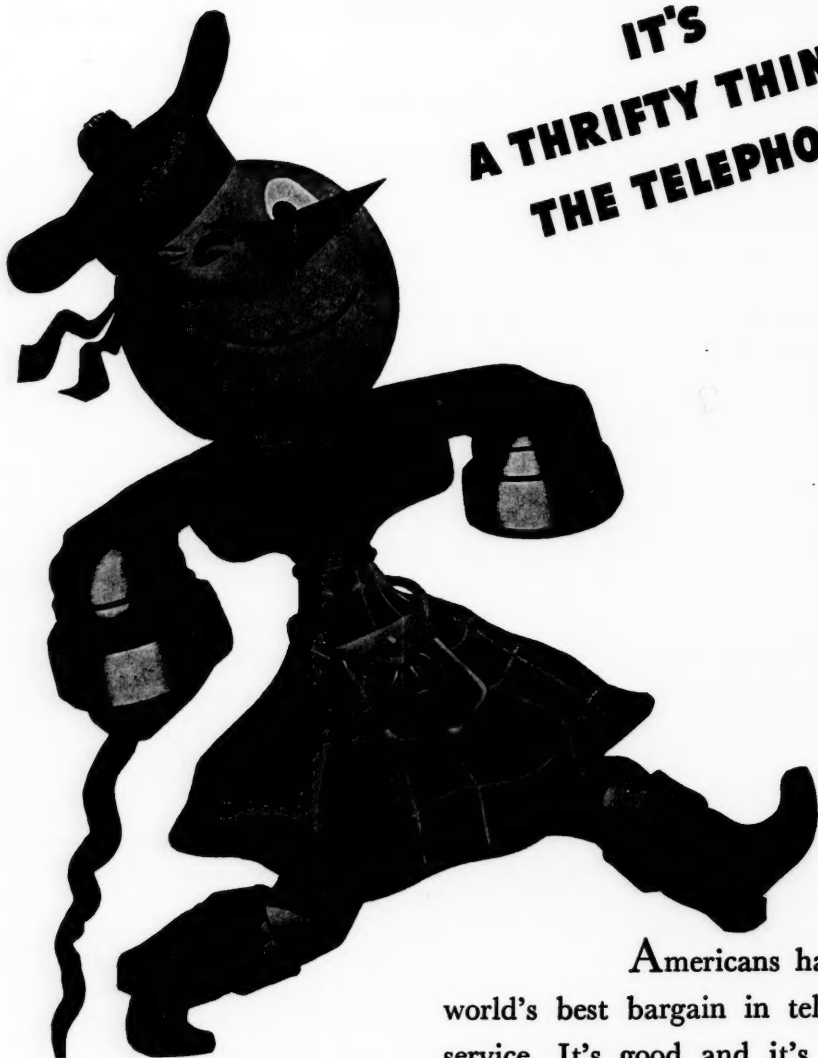
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